

# 2011

## ANNUAL TRANSPORTATION PLANNING AND RESEARCH WORK PROGRAM AND COST ESTIMATE



Project - Planning A011 (194)  
Project - Research A011(195)  
Project - Public Transportation A011(449)

Fiscal Year 2011  
October 1, 2010 - September 30, 2011

Idaho Transportation Department  
Transportation Planning Division  
9/30/2011

FINAL AMENDMENT



# ANNUAL TRANSPORTATION PLANNING AND RESEARCH WORK PROGRAM AND COST ESTIMATE

FISCAL YEAR 2011  
October 1, 2010 – September 30, 2011



Part I: Transportation Planning  
Part II: Research

In cooperation with the



US Department of Transportation  
Federal Highway Administration

A handwritten signature in blue ink, appearing to read "Randy Kyrias".

APPROVED BY \_\_\_\_\_

Randy Kyrias  
Acting Transportation Planning Administrator  
Transportation Planning Division



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Work Authority F11901A, Key #11194  
F10755A, Key #11449

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# **PART I:**

# **TRANSPORTATION**

# **PLANNING**

Authority F11901A, Key #11194/  
F10755A, Key #11449



## ITEM 1.0 – ADMINISTRATION (AA-G101)

**ITD CONTACT:**     **Randy Kyrias**  
Acting Transportation Planning Administrator  
(208) 334-8484

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### MISSION

*To direct an intergovernmental statewide planning process, including research, geographic information systems, data collection systems management and analysis, and provide for the development and implementation of an efficient, integrated multimodal transportation system.*

Our mission is accomplished by:

- supporting the missions of the division's five sections; and
- ensuring that the interests of local government, the state, and the public are adequately taken into account in the planning and project-selection processes.

### OBJECTIVES

- To provide direction, supervision, and office support for Division of Transportation Planning activities
- Coordinate with other administrative heads on day-to-day activities
- To coordinate with outside agencies, individuals, and groups in order to define ITD's role in state government
- To ensure that an adequate work force is maintained; provide necessary equipment and supplies, and ensure that adequate office and shop space are provided
- To coordinate multimodal activities for ITD
- To meet all planning requirements on schedule
- To participate as a member of the executive management team, leadership team, and budget council to set and implement policy for the department

### METHODOLOGY

The Transportation Planning Administrator directs the division's overall activities including management expectations, the internal budget preparation, work program, department's strategic plan, staffing, training, records, reports, correspondence, supplies, travel, and personnel. He also serves on committees and boards as necessary to carry out the mission of ITD.

### FY2011 PRODUCTS

- Complete the long-range transportation plan – Idaho On The Move
- Update the division's strategic plan / performance reports and coordinate the department's update
- Update the division's *Annual Work Program and Cost Estimate*
- Prepare and submit all reports and products as required by established guidelines
- Support and implement corridor-planning efforts
- Coordinate transportation planning activities with local governments
- Assist transportation planning efforts of individual districts
- Incorporate air quality into transportation planning efforts
- Participate as a member of the Executive Management, Budget Council and Leadership Teams to set department policy
- Coordinate and oversee development of the Statewide Transportation Systems Plan
- Assess and implement SAFETEA-LU transportation planning changes resulting from guidance, regulation, etc.
- Continue to deploy research, development, and technology transfer program to meet all departmental needs
- Provide roadway information and digitized images to assist decision makers
- Collect, analyze, report, and archive traffic data for pavement and congestion management purposes.
- Prepare planning-level transportation needs studies
- Build distributed GIS services system for department wide use
- Assist with development of a spatially-enable data warehouse
- Provide technical knowledge of GIS

- Collect data for the pavement history file
- Provide ITD with a strategy to update the location referencing system
- Develop and submit the Annual Local Road Mileage Report
- Implement ITD's strategic plan
- Develop outreach and author department transportation plan that integrates the long-range vision, department strategic plan, and district/corridor/modal plans

TOTAL FY2011 ADMINISTRATION BUDGET

Federal Aid	\$0	+	Match	\$215,093	=	\$215,093
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FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b> <div></div>			

## ITEM 2.0 – GEOGRAPHIC INFORMATION SYSTEMS

**ITD CONTACT:**     **Brian Emmen**  
GIS Manager  
(208) 332-7889

### MISSION

*To improve and expand ITD's Geographic Information System (GIS) by centralizing the program in the Division of Transportation Planning to serve department wide needs.*

Our mission is accomplished by:

- working with internal and external partners in development of applications and data to improve efficiency and distribute GIS technology;
- assisting internal customers in the development and maintenance of their GIS data;
- maintaining and providing a strategy for upgrading the Location Reference System;
- providing oversight and quality assurance/quality control of the joint LHTAC/ITD Local Roads Inventory Program; and
- working cooperatively with Department of Administration Geospatial Office in the Transportation Technical Working Group and in partnership with inside Idaho.

### ITEMS IN THIS SECTION

There are four sub-items in this section:

- Item 2.1 – Digital Mapping and Cartography
- Item 2.2 – Location Referencing System
- Item 2.3 – Local Road Program
- Item 2.4 – GIS Program Development

### TOTAL GEOGRAPHIC INFORMATION SYSTEMS BUDGET

<b>Federal Aid</b>	<b>\$598,121</b>	<b>+</b>	<b>Match</b>	<b>\$149,529</b>	<b>=</b>	<b>\$747,650</b>
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### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/2011
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Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	

**Comments: Reduced budgeted amount from \$787,580 to \$747,650 to reflect actual costs. Remaining funds shifted to the Research Program to cover research project costs.**

## ITEM 2.1 –DIGITAL MAPPING AND CARTOGRAPHY (CF-P233)

**ITD CONTACT:** Tom Marks  
GIS Specialist  
(208) 334-8225

### OBJECTIVES

- To provide maps for use by ITD, other government agencies, the private sector, and the public
- To implement GIS technology to support and enable ITD projects

### METHODOLOGY

The roadway base map is maintained to reflect the current road network based on information from highway plans, local highway district updates, imagery, or aerial photography. Special project maps are completed and specific training is conducted as necessary to meet department needs and customer requests.

### FY2011 PRODUCTS

- Maintain the transportation geospatial data layer for all roads functionally classified minor collector and above
- Maintain a geospatial map and image online library for internal access to state-level databases that support GIS analysis
- Process special requests
- Coordinate GIS software and data development training needs department-wide

### DIGITAL MAPPING AND CARTOGRAPHY BUDGET

Federal Aid	\$182,683	+	Match	\$45,671	=	\$228,354
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### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
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Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
Comments: Reduced budgeted amount from \$268,284 to \$228,354 to reflect actual costs. Remaining funds shifted to the Research Program to cover research project costs.				

## ITEM 2.2 – LOCATION REFERENCING SYSTEM (BE-P274)

**ITD CONTACT:**     **Randy Rowell**  
Research Analyst Supervisor  
(208) 334-8206

### OBJECTIVES

- To provide ITD with a location referencing system by which information systems with various road-related business data can be uniformly cross-referenced
- To provide an accurate and reliable method of identifying routes and features along the State Highway System, as well as all roads that receive state or federal aid
- To communicate to state and federal agencies, units of local government, and the public, information about state-maintained roads as well as locally maintained roads that receive state or federal aid.

### METHODOLOGY

The current location referencing system (MACS) is being migrated to a relational data base management system on a network server for easier maintenance and access by the many systems currently being used or developed within the department that utilize a location reference. Both network and mainframe systems will be maintained until all applications using the current mainframe system are migrated to the new network-based RDBMS system. The MACS location referencing system is the ITD standard for transportation feature location.

### FY2011 PRODUCTS

- Continue migrating the current location referencing system (MACS) to a new relational database platform
- Determine existing accesses to the MACS system, currently located on the mainframe computer, in preparation for conversion to relational database
- Update the location referencing system with new state highway system and federal-aid system projects
- Provide quality control and assurance for attributing the geospatial data with MACS codes for all roads that receive state or federal aid

### LOCATION REFERENCING SYSTEM BUDGET

<b>Federal Aid</b>	<b>\$100,702</b>	<b>+</b>	<b>Match</b>	<b>\$25,175</b>	<b>=</b>	<b>\$125,877</b>
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 2.3 – LOCAL ROAD PROGRAM (BA-P221)

**ITD CONTACT:**     **James Hill**  
Local Road Program Coordinator  
(208) 334-8227

### OBJECTIVES

- To compile the *Annual Local Road Mileage Report*
- To work directly with LHTAC (Local Highways Technical Assistance Council) toward the transfer of this activity

### METHODOLOGY

Classification of roads and determination of mileage is submitted by local road authorities with provisions for annual updating. This classification serves as the basis for distributing state highway user revenues annually to local rural transportation agencies. Information submitted by local road authorities relative to location of roadway is the basis for the local roads database.

### FY2011 PRODUCTS

- Submit the Annual Local Road Mileage Report
- Prepare data and maps for public distribution to local road authorities
- Work with local road authorities to update the local roads database and maps
- Develop a work plan for use by LHTAC as they begin managing the local roads inventory process
- Work in a consulting capacity to assure quality control/quality assurance to help LHTAC with problems and questions as they take on the local roads project

### LOCAL ROAD PROGRAM BUDGET

<b>Federal Aid</b>	<b>\$169,034</b>	<b>+</b>	<b>Match</b>	<b>\$42,258</b>	<b>=</b>	<b>\$211,292</b>
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### FY2011 CHANGES

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Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>          			

## ITEM 2.4 – GIS PROGRAM DEVELOPMENT (CG-P230)

**ITD CONTACT:**     **Brian Emmen**  
                             GIS Manager  
                             (208) 332-7889

### OBJECTIVES

- To review GIS program models in sister agencies and other state Departments of Transportation to see how they are structured for maximum success
- To develop strategy for application integration and deploying modular GIS components
- To negotiate with GIS vendor for modular software maintenance costs

### METHODOLOGY

GIS is a long-term investment that matures over time. The turnaround for results may be longer term than initially expected. The GIS implementation plan will address the following technical, financial, and institutional considerations:

- Coordination with department strategic planning;
- System upgrade tactics and costs;
- Data requirements, standards and costs;
- Database design (road centerlines and cadastral land base);
- Initial data loading requirements and costs;
- System maintenance and upgrade tactics, timetable, and costs;
- System life cycle and replacement costs;
- Staffing requirements and costs;
- User training and costs;
- Education and skills development;
- Application development and integration timelines and costs – i.e. maintenance management system, pavement management system, Advantage system integrated with GIS capabilities; and
- Partnership with Department of Administration Geospatial Office in the Transportation Technical Working Group and Inside Idaho.

### FY2011 PRODUCTS

- Develop a GIS program implementation plan including budget and staff requirements
- Staff a GIS office in support of the department's needs
- Develop the geo-database transportation model
- Work to develop web-based applications for deployment throughout the department
- Conduct outreach to ITD districts and divisions to assure department needs are identified, coordinated, and met over the mid-term horizon

### GIS PROGRAM DEVELOPMENT BUDGET

<b>Federal Aid</b>	<b>\$145,702</b>	<b>+</b>	<b>Match</b>	<b>\$36,425</b>	<b>=</b>	<b>\$182,127</b>
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**FY2011 CHANGES**

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
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Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 3.0 – INTERMODAL PLANNING

**ITD CONTACT:**      **Sonna Lynn Fernandez**  
Intermodal Planning Manager  
(208) 334-8209

### MISSION

*To manage an integrated multimodal process for implementing short- and long-term transportation system planning.*

Our mission is accomplished by:

- coordinating specific short-, mid- and long-range transportation planning activities both within the Division of Transportation Planning and as appropriate throughout ITD;
- encouraging and assisting multi-jurisdictional and multi-modal transportation planning efforts by consulting with metropolitan planning agencies, tribal governments, federal land management agencies and non-metropolitan local officials on transportation planning activities;
- coordinating with district senior transportation and modal planners on modal plans, corridor studies, district plans, etc.
- coordinating the planning and management of specific statewide highway transportation programs such as the Transportation System Planning, Congestion Mitigation and Air Quality Improvement, Scenic Byway and Corridors/Borders, and other programs as requested by management; and
- developing effective information tools and approaches to communicate planning activities and results with our transportation partners and customers.

### ITEMS IN THIS SECTION

There are four sub-items in this section:

- Item 3.1 – Statewide Transportation Planning
  - Item 3.1.1 – Statewide Transportation Planning
  - Item 3.1.2 – Statewide Transportation Systems Plan
  - Item 3.1.3 – Statewide Transportation Improvement Program
- Item 3.2 – Highway Classification and Systems
- Item 3.3 – Statewide Program Planning and Management
- Item 3.4 – Freight and Freight Rail Planning

### TOTAL INTERMODAL PLANNING BUDGET

<b>Federal Aid</b>	<b>\$627,521</b>	<b>+</b>	<b>Match</b>	<b>\$156,880</b>	<b>=</b>	<b>\$784,401</b>
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### FY2011 CHANGES

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Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments: Reduced budgeted amount from \$954,488 to 784,401 to reflect actual costs. Remaining funds shifted to the Research Program to cover research project costs.</b>				

## ITEM 3.1 – STATEWIDE TRANSPORTATION PLANNING (FF-P801, -P806, -P807)

**ITD CONTACT:**     **Sonna Lynn Fernandez**  
Intermodal Planning Manager  
(208) 334-8209

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### OBJECTIVES

- To identify and establish planning procedures to meet current regulatory requirements and other general planning requirements, including the areas that the state must consider in a continuous transportation planning process.
- Facilitate the coordination and integration of transportation modes through regional, corridor, statewide and interstate planning activities.

### 3.1.1– Statewide Transportation Planning (FF-P801)

**ITD CONTACT:**     **Sonna Lynn Fernandez**  
Intermodal Planning Manager  
(208) 334-8209

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### OBJECTIVES

- Manage the Required Continuing Planning Process. Establish and manage a process to carry out continuing long- to short-term statewide transportation planning. The recommended process receives input from a broad range of transportation interests representing both urban and rural areas of Idaho and state-to-state activities and coordination. Maintain consultation and coordination activities with metropolitan and non-metropolitan areas of the state, tribal governments, Local Highway Technical Assistance Council (LHTAC), and all modes.
- Coordinate Planning Requirements. Provide technical assistance as needed to assist metropolitan planning organizations (MPOs), district planners, LHTAC, and modal planners.
- Coordinate Corridor/Regional Planning. Coordinate the Corridor Planning Team and assist district and modal planners to integrate department planning and strategic initiatives into statewide, regional, and corridor-level plans.
- Participate in planning committees and arrange for training to increase knowledge and skills. Staff participates in Transportation Research Board (TRB), American Association of State Highway Transportation Officials (AASHTO), and state planning-related committees and attends or arranges for training and workshops that increase planning knowledge, skills, and abilities.
- Monitor and update the Division's Website. Utilizing the department's internet and intranet site, monitor and update information.

### METHODOLOGY

The requirements for the statewide transportation planning process include the development of a 20-year *Statewide Transportation Systems Plan* (STSP) and the *Statewide Transportation Improvement Program* (STIP).

### FY2011 PRODUCTS

- Coordinate and participate in the Intermodal Working Group and other agency and interagency planning initiatives
- Update as needed ITD's "Corridor Planning Guidebook" and facilitate meetings of the Corridor Planning Team
- Identify and, as appropriate, apply for projects and regional planning studies for corridors of national significance and other discretionary competitive programs
- Review distribution of metropolitan planning and consolidated planning grant funds and update Memorandums of Understanding between the department and MPOs

- Develop and coordinate transportation development agreements between ITD districts and designated transportation or land-use agencies on how development activities that impact transportation will be mutually addressed and supported
- Coordinate activities managed outside the Transportation Planning Division to assure consistency and completeness

### 3.1.2 – Long-Range Transportation Plan (FF-P806)

**ITD CONTACTS:**    **Sonna Lynn Fernandez**  
 Intermodal Planning Manager  
 (208) 334-8209

#### OBJECTIVES

- To develop ITD's Long-Range Transportation Plan as required by Governor's Executive Order 2009-08. The Long-Range Transportation Plan will link ITD's strategic plan with the Statewide Transportation Improvement Program and various corridor plans.
- To establish criteria for project selection and prioritization. Criteria shall be established for prioritizing and selecting transportation infrastructure projects and expending state and federal funds in Idaho.

#### FY2011 PRODUCTS

- Develop the Long-Range Transportation Plan – *Idaho On The Move* for ITD.

### 3.1.3– Statewide Transportation Improvement Program (FF-P807)

**ITD CONTACT:**    **Mark McNeese**  
 Senior Transportation Planner  
 332-7823

#### OBJECTIVES

- Develop and update the Statewide Transportation Improvement Plan (STIP)
- Ensure that MPO Transportation Improvement Programs (TIPs) are included in the STIP. Provide statewide planning information to the public and stakeholders using various electronic formats and visualization technologies
- Manage ITD's Public Involvement Process for Planning Activities. Utilize the departments adopted *Public Involvement Process Plan* and establish a public involvement process that utilizes strategies for including low-income and minority groups in the process and is consistent with ITD's Title VI Plan

#### FY2011 PRODUCTS

- Coordinate and publish the annual *Statewide Transportation Improvement Program* (STIP) for submittal to federal agencies
- Update the Long Range Capital Improvement and Preservation Program, "Horizons in Transportation"
- Provide planning information to the public and stakeholders using various electronic formats and visualization technologies

#### STATEWIDE TRANSPORTATION PLANNING BUDGET

Federal Aid	\$299,521	+	Match	\$74,880	=	\$374,401
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**FY2011 CHANGES**

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/11
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments: Reduced budgeted amount from \$544,488 to 374,401 to reflect actual costs. Remaining funds shifted to the Research Program to cover research project costs.</b>				

## ITEM 3.2 – HIGHWAY CLASSIFICATIONS AND SYSTEMS (FB-P261)

**ITD CONTACTS:**    **Garry Young**  
 Senior Transportation Planner  
 (208) 334-8214

**Lisa Josleyn**  
 Transportation Planner  
 (208) 334-8489

### OBJECTIVES

- Annually update the statewide rural functional classification system for the state highway system
- Identify and establish defined systems of highways based on functional usage and jurisdictional responsibilities.
- Review jurisdictional responsibilities to ensure that the level of responsibility continues to reflect the actual usage of the routes using departmental policies and procedures as a systematic guide to the implementation of these activities.
- Update the Functional Classification Map. Coordinate the update of the functional classification to ensure that changes made by local entities are reflected on the map.
- Manage ITD's Transportation System Planning Process. Manage ITD's Transportation System Planning process including access control determinations, road closures, and official minutes.

### METHODOLOGY

Jurisdictional responsibilities are reviewed to ensure that the level of responsibility (state or local) continues to reflect the actual usage of the routes. After each census, local highway jurisdictions must update their functional classifications and, in off-census years, have the opportunity to review existing functional classifications and make warranted revisions to their respective systems. Department staff reviews, updates, and transmits the requested version for official signatures, which is transmitted to the Federal Highway Administration (FHWA) for final approval.

### FY2011 PRODUCTS

- Complete rural functional classification updates as submitted
- Complete urban and MPO functional classification updates as submitted
- Complete state rural functional classification system update for the state highway system
- Incorporate changes to access control and road closures to the functional classification map
- Participate on the Systems Action Committee and lead the Subcommittee on State Highway System Adjustments

### HIGHWAY CLASSIFICATIONS AND SYSTEMS BUDGET

<b>Federal Aid</b>	<b>\$32,000</b>	<b>+</b>	<b>Match</b>	<b>\$8,000</b>	<b>=</b>	<b>\$40,000</b>
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	Date Received:
Removed from Program:	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	Date Removed:
<b>Comments:</b>					

### ITEM 3.3 – STATEWIDE PROGRAM PLANNING AND MANAGEMENT (FP-P803, -P804)

**ITD CONTACTS:**    **Garry Young**  
Senior Transportation Planner  
(208) 334-8214

**Lisa Josleyn**  
Transportation Planner  
(208) 334-8289

#### OBJECTIVES

- Manage program delivery and annual project development application process

#### METHODOLOGY

Provide centralized resources for program information and support. Coordinate the application process for the Scenic Byway and the CMAQ programs and oversee the application process. ITD's Transportation System Planning process includes access control determinations, road closures, and official minutes.

#### FY2011 PRODUCTS

- Deliver scheduled program on time
- Oversee internal and external information management
- Coordinate application and project selection processes
- Facilitate statewide committee meetings
- Evaluate programs in meeting statewide strategic goals for efficiency, customer service, partnerships, and performance
- Collect program data and provide data responses on programs as requested

#### STATEWIDE PROGRAM PLANNING BUDGET

<b>Federal Aid</b>	<b>\$96,000</b>	<b>+</b>	<b>Match</b>	<b>\$24,000</b>	<b>=</b>	<b>\$120,000</b>
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#### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

### ITEM 3.4 – FREIGHT AND FREIGHT RAIL PLANNING (FR-P802)

**ITD CONTACT:**     **Ron Kerr**  
Senior Transportation Planner  
(208) 334-8210

#### OBJECTIVES

- Formulate freight strategy recommendations leading to freight coordination activities and the preservation of rail services determined to be essential to the state's economy and transportation system

#### METHODOLOGY

Staff supports the Interagency Working Group (Idaho Code 49-2902), the Rural Economic Development, and Integrated Freight Transportation Program. Prepare state freight and freight rail/intermodal plans.

#### FY2011 PRODUCTS

- Inform ITD planners, management and transportation stakeholders about current developments in freight shipping
- Review ITD's rail plan and assess status of freight shipping in Idaho to determine needed updates, additional information/data, and possible consultation services needed for the freight (trucking, rail, port, air, and intermodal) section of the state transportation plans
- Monitor the operation of short-line carriers serving Idaho and determine possible needs for planning and rail rehabilitation project assistance
- Analyze and seek possible rail-preservation solutions for the rail lines potentially subject to abandonment.
- Provide support for ITD's Cost Allocation Study

#### FREIGHT AND FREIGHT RAIL PLANNING BUDGET

<b>Federal Aid</b>	<b>\$40,000</b>	<b>+</b>	<b>Match</b>	<b>\$10,000</b>	<b>=</b>	<b>\$50,000</b>
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#### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>     			

### ITEM 3.5 – ADA DATA COLLECTION (FC-P805)

**ITD CONTACT:**

**Mark McNeese**  
Senior Transportation Planner  
(208) 332-7823

**Karl Vogt**  
Deputy Attorney General  
(208) 334-8018

**OBJECTIVES**

Inventory the state highway system in both urban and rural areas where there are pedestrian facilities (sidewalk, curb ramps, etc.) for compliance with Americans with Disabilities Act (ADA) accessibility standards.

**METHODOLOGY**

Using Global Positioning System (GPS) as the collection instrument, inventory all state highway system sidewalks and ramps within city boundaries for ADA facility compliance. Over a period of several years, inventory each ITD district (the inventory has been completed in Districts 1, 2, and 3; District 4 is about 75% complete) and compile in a database (District 3 is complete) editable through an internet connection. Develop a transition plan for remediation of facilities that do not meet ADA standards. Design a GIS application for editing data via an internet connection.

**FY2011 PRODUCTS**

- Complete post processing and quality control of GPS/GIS files for all Districts
- Train District staff in data collection
- Complete inventory in remaining Districts
- Work with the GIS Section on database development, design, and storage

**ADA DATA COLLECTION BUDGET**

<b>Federal Aid</b>	<b>\$160,000</b>	<b>+</b>	<b>Match</b>	<b>\$40,000</b>	<b>=</b>	<b>\$200,000</b>
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**FY2011 CHANGES**

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 4.0 –PLANNING SERVICES (PAVEMENT SERVICES)

**ITD CONTACT:**     **Gary Sanderson**  
Pavement Services Manager  
(208) 334-8211

### MISSION

*To assist decision makers to reach cost-effective transportation system improvement decisions.*

Our mission is accomplished by providing accurate and timely information to internal customers, other government agencies, and the public by:

- managing transportation-related databases;
- integrating computer-assisted analysis with technical support;
- using professional engineering and planning judgment; and
- implementing the division's vision of transportation planning principles.

### ITEMS IN THIS SECTION

There are three sub-items in this section:

- Item 4.1 – Monitor Condition of the Transportation System
- Item 4.2 - Analyze and Model the Transportation Systems
- Item 4.3 – Report the Transportation System

### TOTAL PLANNING SERVICES BUDGET

<b>Federal Aid</b>	<b>\$370,471</b>	<b>+</b>	<b>Match</b>	<b>\$92,618</b>	<b>=</b>	<b>\$463,089</b>
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### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/11
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments: Reduced budgeted amount from \$495,513 to \$463,089 to reflect actual costs. Remaining funds shifted to the Research Program to cover research project costs.</b>				

## ITEM 4.1 – MONITOR CONDITION OF THE TRANSPORTATION SYSTEM (FD-P111)

**ITD CONTACT:** Karen Strauss  
Pavement Management Engineer  
(208) 334-8268

### OBJECTIVES

- Inventory a statistical sampling of Idaho's roadways
- Assess the pavement condition of the State Highway System and other select roadways
- Coordinate regional congestion management efforts with local public agencies

### METHODOLOGY

Highway Performance Monitoring System (HPMS) requires an inventory of roadway features and an assessment of pavement conditions for a sampling of all Idaho's roadways. Planning Services personnel inventory half of the state each year for HPMS.

ITD's Pavement Management System includes a pavement condition survey, assessing the cracking, roughness and rutting of the entire State Highway System annually. The cracking monitoring is performed by Planning Services personnel. Roughness and rutting monitoring are performed by software administered by the Roadway Data Section.

A coordinated and cooperative congestion management effort needs to be accomplished department-wide and in each major city or region.

### FY2011 PRODUCTS

- Inventory of a sampling of the state's roadways
- Update the pavement history file and assess cracking on the State Highway System
- Continue coordinating congestion relief efforts around the state

### MONITOR CONDITION OF THE TRANSPORTATION SYSTEM BUDGET

Federal Aid	\$32,000	+	Match	\$8,000	=	\$40,000
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 4.2 – ANALYZE AND MODEL THE TRANSPORTATION SYSTEM (FH-P113)

**ITD CONTACT:** Charles Gillin  
Division Automated Systems Manager  
(208) 334-8232

### OBJECTIVES

- Determine the funding needed to keep the highway system at chosen levels of service and address the impacts of various budget levels on pavement performance
- Process roadway data using HPMS software
- Provide statistical data for Idaho's highways, roads, and streets
- Identify needed projects and related costs for transportation facilities improvement
- Identify sections of highways that exceed the threshold for acceptable travel time
- Improve data availability by implementing analysis and reporting tools

### METHODOLOGY

ITD's Pavement Management System (PMS) includes economic analysis and optimization. A transportation needs and economic model, Highway Economic Requirements System – State Version (HERS-ST) is used to identify needed projects and costs. HERS-ST is used to determine deficiencies, estimate the capital and annual costs associated with each section produce summary tabulations, and perform economic analyses. Rural highway sections needing passing lanes or other improvements to remedy rural congestion are identified by a computer model and communicated to the districts. The ratio of actual travel time during recurring congestion to ideal travel time (SI) is calculated and reported to decision makers.

### FY2011 PRODUCTS

- Analyze the entire State Highway System's profile data and visual surface condition data.
- Improve (HERS-ST) in the Pavement Management System including economic analysis and optimization
- Continue to automate and streamline the HPMS database updating process
- Improve HERS-ST as the Department's transportation needs modeling process
- Refine the congestion analysis techniques and procedures, including user cost and graphic display components
- Transportation needs studies
- Comprehensive data store of planning information
- Data and systems architecture analyses

### ANALYZE AND MODEL THE TRANSPORTATION SYSTEM BUDGET

<b>Federal Aid</b>	<b>\$258,471</b>	<b>+</b>	<b>Match</b>	<b>\$64,618</b>	<b>=</b>	<b>\$323,089</b>
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### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/11
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
Comments: Reduced budgeted amount from \$355,513 to \$323,089 to reflect actual costs. Remaining funds shifted to the Research Program to cover research project costs.				

## ITEM 4.3 – REPORT THE TRANSPORTATION SYSTEM (FL-P280)

**ITD CONTACT:** Charles Gillin  
Division Automated Systems Manager  
(208) 334-8232

### OBJECTIVES

- Submit an annual HPMS report to the FHWA for further processing and production of national highway statistical reports and other special reports to Congress and the public
- Provide accurate, consistent and objective information for use in making cost-effective decisions regarding pavement rehabilitation and reconstruction
- Provide decision makers with congestion data and suggested remedies
- Provide information to decision makers about network level transportation systems
- Maintain and update the division's documents, reports, plans, and general information on the internet and intranet
- Add new documents, reports, and plans to the division's internet/intranet sites as they are published

### METHODOLOGY

Planning Services personnel answer numerous inquiries about our transportation systems: the State Highway System, local agencies' roadways, and other transportation modes. This information is valuable to decision makers facing difficult transportation issues. Planning Services also provides online tools and applications for the public to obtain transportation information easily.

The internet is an effective tool to provide planning data to our customers. The information on the division's internet site must be kept current to generate confidence in its quality. The effort to maintain and update our internet site is an ongoing and critical task. The work requires coordination with division personnel to obtain the most current information, prepare it in internet format, and post it to our site.

### FY2011 PRODUCTS

- Provide highway data to consultants authoring studies for the department
- Continue to refine the method of gathering HPMS data from local jurisdictions to make it more effective
- Prepare and release pavement management reports
- Provide congestion data to the department decisions makers
- Continue updating the division's internet/intranet site with the most recent information
- Answer inquiries from the Legislature, executive managers, and the public

### REPORT THE TRANSPORTATION SYSTEM BUDGET

<b>Federal Aid</b>	<b>\$80,000</b>	<b>+</b>	<b>Match</b>	<b>\$20,000</b>	<b>=</b>	<b>\$100,000</b>
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 5.0 – ROADWAY DATA

**ITD CONTACT:**     **Glenda Fuller**  
Roadway Data Manager  
(208) 334-8217

### MISSION

*To provide efficient collection of valid statewide transportation data in support of other systems within the department. Collect, analyze, report, and retain statewide traffic data.*

Our mission is accomplished by:

- providing accurate and timely information to ITD, the public, the private sector, and other government agencies;
- collecting data for the department's Pavement and the Congestion Management systems; and
- managing traffic-related databases.

### ITEMS IN THIS SECTION

There are three sub-items in this section:

- Item 5.1 – Vehicle Volumes, Classification, Weight, and Characteristics
- Item 5.2 – State Highway Systems Inventory
- Item 5.3 – Highway System Monitoring & Reporting

### TOTAL ROADWAY DATA BUDGET

<b>Federal Aid</b>	<b>\$1,161,670</b>	<b>+</b>	<b>Match</b>	<b>\$290,418</b>	<b>=</b>	<b>\$1,452,088</b>
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### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/2011
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/2011
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments: Increased budgeted amount from \$1,428,972 to \$1,452,088 to reflect actual costs.</b>				

**ITD CONTACT:**     **Scott Fugit**  
Research Analyst Principal  
(208) 334-8207

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## **OBJECTIVES**

- Obtain traffic volumes and vehicle-classification counts statewide and determine the proportion and type of vehicles in a sample traffic stream.
- Maintain historical traffic-characteristic files and make them available for current and forecasted traffic analysis.
- Process traffic data of all types in support of other data-management systems.
- Review vehicle classification data. Develop statistics and reports to be used for highway location and design, evaluation of program priorities, evaluation of highway accidents, rural and urban statistical traffic assignments, travel trends, highway finance, and land developments.
- Work with annual data from 189 permanently installed automatic traffic recorders with 158 on the state highway system and 31 at off-system sites. Develop traffic segment flow conclusions and provide seasonal variation factors, design hour volumes, and reasonable sampling and screen line data.
- Develop relevant statistics from portable counters used as required for intersection turning movements and a broad range of other traffic data collection activities. Analyze vehicle classifications, and traffic-volume flow based on portable counter data.
- Collect vehicle weight, axle spacing, speed, classification, and bumper-to-bumper lengths from a representative sample portion of the traffic stream.
- Collect and distribute Equivalent Single Axle Loadings (ESAL) information as well as the newer Load Spectra Data. This data is used for pavement-management purposes, roadway design and location planning, traffic operations and regulations, and highway funding requests.

## **METHODOLOGY**

The Roadway Data Section collects the traffic volume, vehicle classification, and truck weight data via the use of permanent and portable traffic recording equipment. Mainframe and desktop applications allow for the analysis and development of necessary statistics and traffic flow patterns. Receive, review, analyze, and process the field data for use by the department and private sector. Interface with mainframe support personnel to maintain ongoing applications.

Maintain and operate 25 permanent Weigh-In-Motion (WIM) systems to collect classification and axle-loading data throughout Idaho. The same crew performs regular maintenance functions at these sites including system calibration, electronics and telecommunications troubleshooting, plus sensor and loop repairs. An office employee handles all supervision, data processing, analysis, and reporting, plus federal data submissions. We also maintain and constantly update a website containing current and historical traffic survey related monthly and annual reports.

## **FY2011 PRODUCTS**

- Generate reports and data sets from traffic counts including one-third of the HPMS and Principle Arterial System/National Highway System (PAS/NHS) sample sections
- Review and collate classification data on selected HPMS sample sections for 48-hour periods
- Analysis and reports related to equipment verification or in conjunction with other studies
- Compile statistics and data sets to be used with FHWA submissions as part of ITD's annual programs
- Assist in equipment and data collection systems review to assess annual performance for accuracy
- Install permanent WIM systems in several statewide locations as replacements or new sites
- Perform several major repairs and sensor installations on exiting SHRP/LTPP WIM systems
- Continue the upgrading of the Roadway Data Section portion of ITD's website
- Complete the federally mandated data submittal to the SHRP/LTPP regional office and the FHWA in Washington, D.C.
- Assist in various WIM data-related studies involving permanent system data and reports in conjunction with FHWA, private contractors and several research institutions

- Participate in field system equipment reviews and meet with vendors to review new data collection systems and evaluate performance, data accuracy, and software
- Contribute to M-E PDG pavement design models as requested with traffic load related data inputs

VEHICLE VOLUMES, CLASSIFICATION, WEIGHT, AND CHARACTERISTICS BUDGET

Federal Aid	\$977,670	+	Match	\$244,418	=	\$1,222,088
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FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/2011
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/2011
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
Comments: Increased budgeted amount from \$1,198,972 to \$1,222,088 to reflect actual costs.				

## ITEM 5.2 – STATE HIGHWAY SYSTEM INVENTORY (FJ-P760)

**ITD CONTACT:**     **Glenda Fuller**  
Roadway Data Manager  
(208) 334-8217

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### OBJECTIVES

- Obtain roughness, rutting, cracking, heading, grade, cross slope, and GPS coordinate information for the state highway system
- Take digitized images (perspective and pavement) of the state highway system
- Inventory all the geometric data needed for HPMS on/off the state highway system

### METHODOLOGY

Roughness, rutting, and cracking information are obtained annually in at least one direction of the state highway system for use by the department's Pavement Management System. Digitized images of the highways assist management, engineers, and technicians in analysis and decision-making.

### FY2011 PRODUCTS

- Collect roughness, rutting, cracking, heading, grade, cross slope and GPS coordinate information for the state highway system in one direction
- Take digitized images of the state highway system
- Collect data for the pavement history file

### STATE HIGHWAY SYSTEM INVENTORY BUDGET

<b>Federal Aid</b>	<b>\$80,000</b>	<b>+</b>	<b>Match</b>	<b>\$20,000</b>	<b>=</b>	<b>\$100,000</b>
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>          			

## ITEM 5.3 – HIGHWAY SYSTEMS MONITORING AND REPORTING (FK-P661, - P111)

**ITD CONTACT:** Dorothy Aydelotte  
Mathematical Analyst  
(208) 334-8205

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### OBJECTIVES

- Inventory a statistical sampling of Idaho's roadways
- Process roadway data using HPMS software
- Improve data availability by implementing analysis and reporting tools
- Submit an annual HPMS report to the FHWA for further processing and production of national highway statistical reports and other special reports to Congress and the public
- Maintain and update the division's documents, reports, plans, and general information on the internet and intranet
- Add new documents, reports, and plans to the division's internet/intranet sites as they are published

### METHODOLOGY

Highway Performance Monitoring System (HPMS) requires an inventory of roadway features and an assessment of pavement conditions for a sampling of all Idaho's roadways. This data is then assembled into a report for the FHWA and is used to answer a myriad of data information requests from ITD employees, legislators, consultants, and the general public.

The internet is an effective tool to provide planning data to our customers. The information on the division's internet site must be kept current to generate confidence in its quality. The effort to maintain and update our internet site is an ongoing and critical task. The work requires coordination with division personnel to obtain the most current information, prepare it in internet format, and post it to our site.

### FY2011 PRODUCTS

- Inventory of a sampling of the state's roadways
- Update HPMS software to new submittal format
- Improve the HPMS data collection and management processes to increase the accuracy and reliability of the data
- Maintain and make needed modifications the data collection software used by Roadway Data and Pavement Services
- Design and maintain web interface for city road mileages
- Continue to refine the method of gathering HPMS data from local jurisdictions to make it more effective
- Supply data to and furnish quality control for data in the TAMS system
- Provide highway data to consultants authoring studies for the department
- Answer inquiries from the Legislature, executive managers, and the public
- Continue updating the division's internet/intranet site with the most recent information

### HIGHWAY SYSTEM MONITORING & REPORTING BUDGET

<b>Federal Aid</b>	<b>\$104,000</b>	<b>+</b>	<b>Match</b>	<b>\$26,000</b>	<b>=</b>	<b>\$130,000</b>
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**FY2011 CHANGES**

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 6.0 – PUBLIC TRANSPORTATION

**ITD CONTACT:**     **Randy Kyrias**  
Public Transportation Administrator  
(208) 334-8281

### MISSION

*Our mission is to ensure the effective use of federal, state, and local public transportation funds and enhance the mobility of Idaho's citizens.*

Our mission is accomplished by:

- mobility management and coordination of public transportation services/systems;
- grant administration and management; and
- bicycle and pedestrian planning and coordination.

### ITEMS IN THIS SECTION

There are three sub-items in this section:

- Item 6.1 – Transportation Enhancement Planning and Management
- Item 6.2 – Bicycle and Pedestrian Planning and Coordination
- Item 6.3 – Public Transportation Administration Grant

### TOTAL PUBLIC TRANSPORTATION BUDGET

<b>Federal Aid</b>	195,000	+	<b>Match</b>	\$48,750	=	<b>\$223,750</b>
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b> Corrected total. Should be \$223,750 rather than \$195,000 as appeared in original plan.			

## ITEM 6.1 – TRANSPORTATION ENHANCEMENT PLANNING AND MANAGEMENT (FI-P802)

**ITD CONTACT:**     **Randy Kyrias**  
Public Transportation Administrator  
(208) 334-8281

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### OBJECTIVES

- Coordinate existing project activities with local project sponsors, primarily bidding, construction, and project closeout
- Administer existing grants within ITD's project tracking systems
- Evaluate and improve the Transportation Enhancement program based on anticipated changes to the next highway transportation bill reauthorization

### METHODOLOGY

Monitor project activities with monthly communications with local project sponsors, and coordinate with district project managers on project implementation.

### FY2011 PRODUCTS

- Completed projects

### TRANSPORTATION ENHANCEMENT PLANNING BUDGET

<b>Federal Aid</b>	<b>\$0</b>	<b>+</b>	<b>Match</b>	<b>\$0</b>	<b>=</b>	<b>\$0</b>
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>          			

## ITEM 6.1 – BICYCLE AND PEDESTRIAN PLANNING AND COORDINATION (FI-P802)

**ITD CONTACT:** **Maureen Gresham**  
Bicycle and Pedestrian Coordinator  
(208) 334-8272

### OBJECTIVES

- Implement activities identified as part of the Idaho Bicycle and Pedestrian Transportation Program
- Provide technical and resource assistance for bicycle and pedestrian planning, project design, and program development
- Improve communications between stakeholders, including ITD, local communities, and local advocacy groups
- Monitor statewide needs for education, encouragement, and enforcement assistance
- Seek new partnerships in addressing non-motorized transportation issues
- Maintain existing partnerships with organizations that focus on multi-modal connectivity, including Community Transportation Association of Idaho (COMPASS), Idaho Smart Growth, and Idaho Pedestrian and Bicycle Alliance

### METHODOLOGY

Distribute educational materials on bicycle and pedestrian issues. Participate in/with and/or provide support for other ITD staff/initiatives, including the Safe Routes to School program, Office of Highway Safety Bicycle/Pedestrian program, transportation planning initiatives, design reviews, etc. Assess current ITD practices, policies, and programs as related to bicycle and pedestrian mobility. Partner with key stakeholders. Use variety of communication techniques to raise awareness of the bicycle/pedestrian program, funding/technical assistance, and activities conducted throughout the state. Identify bicycle and pedestrian champions to act as key messengers. Research innovative practices related to bicycle and pedestrian mobility.

### FY2011 PRODUCTS

- 2011 Bicycle and Pedestrian Plan
- Communications Plan
- Revised website and other social media
- Bicycle and Pedestrian Guide (incorporating design standards, policies, and programs)
- Funding guide

### BICYCLE AND PEDESTRIAN PLANNING AND COORDINATION BUDGET

<b>Federal Aid</b>	<b>\$96,000</b>	<b>+</b>	<b>Match</b>	<b>\$24,000</b>	<b>=</b>	<b>\$120,000</b>
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 6.3 – PUBLIC TRANSPORTATION ADMINISTRATION GRANT (P1075SA)

**ITD CONTACT:**      **Randy Kyrias**  
Public Transportation Administrator  
(208) 334-8281

### OBJECTIVES

- Support the growth and sustained operation of integrated mobility systems serving citizens of Idaho
- Continually support the role of the general public and other mobility stakeholders in prioritizing the needs, strategies, and projects identified in the local, district, and statewide mobility planning processes
- In developing and administering mobility programs for the state, recognize the importance of economic, social, and environmental health of local communities, districts, and the state
- Develop and implement funding processes that encourage multimodal flexibility, with state and local commitment to integrated transportation and land use planning
- Identify and promote additional partnerships and mobility funding opportunities
- Work with Metropolitan Planning Organizations (MPOs) to balance the distribution of funds
- Facilitate the Statewide Transportation Improvement Program (STIP) administration of transit-related projects from MPOs
- Coordinate mobility among Idaho state agencies providing human services and public transportation services

### METHODOLOGY

Develop Memorandums of Understanding with planning partners; enable and support the Community Transportation Association of Idaho (CTAI) to lead planning, training, and rideshare opportunities. Coordinate and participate in planning activities with other divisions, local governments, and MPOs. Work with other state agencies providing public transportation funds to coordinate services and eliminate barriers to coordination. Provide staff assistance and guidance to the joint committee of the Public Transportation Advisory Council and Interagency Working Group for Public Transportation Services. Research and facilitate application for discretionary funding opportunities. Facilitate and assist with the development of the STIP and with the process to modify the STIP, and provide interpretation and guidance for Federal Transit Administration (FTA) formula funding programs.

### FY2011 PRODUCTS

- Memorandums of Understanding with mobility partners
- Update of seventeen local mobility coordination plans
- Integration of local mobility coordination plans with MPO Plans, local comprehensive plans, and ITD Highway corridor plans
- Statewide mobility balancing organizational structure and process
- Additional discretionary funding opportunities for mobility and public transportation projects
- Mobility policies
- Reporting of mobility performance data including reporting to the rural National Transit Database
- Reporting of transit and mobility projects in the Idaho STIP
- 511, trip planning, and advanced public transportation system technologies
- Mobility Management Administration System (MMAS)

### PUBLIC TRANSPORTATION ADMINISTRATION GRANT BUDGET

<b>Federal Aid</b>	<b>\$99,000</b>	<b>+</b>	<b>Match</b>	<b>\$24,750</b>	<b>=</b>	<b>\$123,750</b>
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## FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			



## ITEM 7.0 – TRANSPORTATION INVESTMENT PROGRAMMING

**ITD CONTACT:**     **Dave Amick**  
Transportation Investment Program Manager  
(208) 334-8264

### MISSION

*Our mission is to develop multi-modal transportation program investment strategies that are used to direct transportation programs governing statewide multi-modal project selection decisions.*

Our mission is accomplished by:

- Determining funding sources and availability and develop an investment strategy that meets funding constraints, performance goals, and strategic and long-range plans

### ITEMS IN THIS SECTION

There is one sub-item in this section:

- Item 7.1 – Programming

### TOTAL PROGRAMMING BUDGET

<b>Federal Aid</b>	\$265,760	+	<b>Match</b>	\$66,440	=	<b>\$332,200</b>
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### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

**ITD CONTACT:**     **Dave Amick**  
Transportation Investment Program Manager  
(208) 334-8264

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### OBJECTIVES

- Transportation program performance policies and procedures are established and communicated to transportation program and project managers
- Transportation program performance goals, investment strategies and program plans are integrated with strategic and long range transportation plans
- Statewide transportation program management funding, project information and support systems are provided for use by other transportation partners participating in the department's strategic and long range plans

### METHODOLOGY

- Provide analysis and technical support in the development and implementation of Idaho Transportation Board and management policies regarding the funding and management of the department's capital investment programs.
- Annually update the Idaho Transportation Board approved multi-modal Idaho Capital Investment Program (ICIP) for internal use coordinated with the Statewide Transportation Improvement Program (STIP) document for public review and FHWA approval.
- Combine the department's various board-approved multi-modal transportation programs into an overall transportation investment strategy consistent with the department's strategic and long-range transportation plans.
- Integrate funding from federal, state, local, and other sources with the department's budgetary and financial systems.
- Fully integrate the department's program funding, project budgeting and scheduling systems with the department's budgeting and financial management systems under a single integrated financial management system.
- Improve the department's capability to provide timely and accurate project budgeting, funding, and financial performance information statewide to department project managers, transportation stakeholders, and participating transportation program managers outside the department.
- Idaho Transportation Board presentations are made monthly. Ongoing program policy and management meetings occur with transportation stakeholders, transportation program managers, project managers, and other transportation program partners.

### FY2011 PRODUCTS

- Publish and provide updated multi-modal STIP to stakeholders and public that optimizes transportation program performance
- Update funding plans to support the Idaho Transportation Board's transportation program policies and investment strategies for state, local and other transportation agencies
- Provide management approved budgeting guidance to the department's transportation program and project managers
- Provide policy guidance, program coordination, technical support, and information systems to transportation program managers outside the department, including MPOs, the Transportation Management Area (TMA), LHTAC, and Federal Lands Tri-Agency Group
- Using federal laws and board policy transportation funding estimating procedures and authorized funding, tracking systems are established and maintained, including funding sub-allocations
- Maintain a system for tracking project obligations and balances
- Maintain current and historical records of project scope, budget and funding decisions

- Minimum annual published documents include:
  1. capital Investment Program Update Packet (February),
  2. Highway Development Program Workbook (June)
  3. final Recommended Capital Investment Program (September) as well as updates as needed throughout the year, and
  4. transportation program system user manuals and other system documentation.
- Provide project data and program funding balance information to be incorporated into the Draft STIP and Final Approved STIP submitted to FHWA and Federal Transit Administration (FTA)
- Training and workshops are provided in transportation finance, transportation programming systems, and transportation program performance policy
- Systems and analysis for the measurement and reporting of the performance of transportation program plans and respond to ad hoc request for analysis and information
- Participate in state and national efforts addressing transportation funding issues
- GARVEE support

#### BUDGET

<b>Federal Aid</b>	\$265,760	+	<b>Match</b>	\$66,440	=	<b>\$332,200</b>
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#### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

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# PART II: RESEARCH

Authority F11901R, Key # A011(195)

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## ITEM 8.0 – RESEARCH

Work Authority F11901R, Key # A011(195)

**ITD CONTACT:**     **Ned Parrish**  
Research Manager  
(208) 334-8296

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### OBJECTIVES

- To support research, development, and technology transfer activities addressing the department's strategic goals and initiatives
- To enhance ITD's ability to deliver efficient and effective transportation services
- To offer practical solutions for problems facing the Department
- To develop new tools/technologies and facilitate their implementation

### PROGRAM RESPONSIBILITIES

- To administer federal SPR (State Planning & Research) funds for ITD research, development, and technology transfer
- To coordinate Department involvement in multi-state pooled fund projects
- To identify ITD research needs and priorities
- To help staff locate transportation research and information
- To oversee ITD research projects performed by universities and consultants.
- To oversee Idaho Technology Transfer Center (T<sup>2</sup> Center) funding
- To coordinate ITD involvement in national and regional transportation research with TRB, AASHTO, Region X Transportation Consortium, and other organizations

### ITEMS IN THIS SECTION

There are twelve sub-items in this section:

- Item 8.1 – National Cooperative Highway Research Program (NCHRP)
- Item 8.2 – TRB and AASHTO Coordination
- Item 8.3 – AASHTO Relocation Software Project (2008-10)
- Item 8.4 – AASHTO Programs, Partnerships and Groups
- Item 8.5 – National and Regional Pooled Fund Projects
- Item 8.6 – 2009 Cooperative Research Projects (University of Idaho)
- Item 8.7 – 2009 Cooperative Research Projects (Boise State University)
- Item 8.8 – 2010 Cooperative Research Projects (University of Idaho)
- Item 8.9 – 2011 Cooperative Research Projects (University of Idaho)
- Item 8.10 – 2011 Cooperative Research Projects (Boise State University)
- Item 8.11 – 2011 Cooperative Research Projects (Montana State University)
- Item 8.12 – 2011 Cooperative Research Project (Washington State University)
- Item 8.13 – 2011 Cooperative Research Project (Private Consultant)
- Item 9.1 – LHTAC Study #1

## ITEM 8.1 – NCHRP PROGRAM (2011)

### IDENTIFICATION: TPF-5(411)

Title: National Cooperative Highway Research Program (NCHRP)  
Research Agency: Various, coordinated by the Transportation Research Board  
Work Plan Approval: Annual Agreement  
ITD Key Number: 12903

### OBJECTIVE

- To provide for the annual NCHRP assessment to fund the national research program

### PROPOSED ACTIVITY – FY2011

- Continue national highway research program and initiate new projects as approved by the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Research.
- Ned Parrish, Research Program Manager, is the ITD Project Manager.

### COST

- FY2011: \$317,433 (100% Federal SPR)

### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/2011
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
Comments: Increased budgeted amount from \$290,000 to \$317,433 to reflect actual NCHRP payment amount for FY2011.				

## ITEM 8.2 – TRB AND AASHTO PROGRAMS (2011)

### IDENTIFICATION:

Title: Expenses for Annual Transportation Research Board (TRB) and AASHTO Research Advisory Committee (RAC) Meetings  
Research Agency: ITD  
Work Plan Approval: Annual Meetings

### OBJECTIVES

- To provide travel funds for research personnel to attend the above listed TRB and AASHTO meetings. The Research Program Manager serves as the department's state representative to the TRB and AASHTO RAC

### PROPOSED ACTIVITY – FY2011

- Participate in TRB and AASHTO meetings regarding transportation research, development, and technology transfer
- Ned Parrish, Research Program Manager, is the ITD Project Manager

### COST

- FY2011: \$2,200 (\$1,760 Federal SPR (80/20)).

### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/2011
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
Comments: Reduced budgeted amount from \$4,000 to \$2,200 to reflect actual costs. Shifted funding to research projects.				

## ITEM 8.3 – AASHTO RELOCATION PROJECT (2008-10)

### IDENTIFICATION:

Title: Turbo Relocation Joint Software Development Project  
Research Agency: AASHTO  
AASHTO Contact: Vicki Schofield, AASHTO, vschofield@AASHTO.org  
Work Plan Approval: Approved

### OBJECTIVES

- The software developed by this project will assist in providing relocation assistance to individuals, families, and businesses displaced because of public construction projects. This software will address the emerging need to automate relocation calculations that can be used by any agency or their contractor to implement the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.
- The software is being developed to address various issues within the Department of Transportation (DOT) agencies including: institutional knowledge loss, increased or steadily increasing number of relocations, increase in reliance on consultants for both services and expertise, and the increase in projects carried out by local public agencies which require stewardship and oversight by state DOT's.
- ITD contributed a total of \$90,000 to this development project in FY2008 and FY2009. Work on the project began in the summer of 2008, and the release of the production ready software is scheduled for November 2010. This project was approved by FHWA for 100 percent federal SPR funds with no state match.

### PROPOSED ACTIVITY – FY2011

- Complete software development and testing. The software will be available to ITD in the fall of 2010
- Carmen Reese, Senior Right-of-Way Agent, Relocation, is the ITD Project Manager

### COST

- FY2011: Funding commitment met - no additional funding needed.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.4 – AASHTO PROGRAMS, PARTNERSHIPS, AND GROUPS (ONGOING)

### IDENTIFICATION:

Title: Support for AASHTO Technical Service Programs (TSP<sup>2</sup>)  
Research Agency: AASHTO  
Work Plan Approval: Ongoing Programs

### OBJECTIVES

This item provides financial support for several AASHTO technical service programs, including:

- National Transportation Product Evaluation Program (NTEP)
- AASHTO Product Evaluation List Program (APEL)
- Technology Implementation Group (TIG)
- Snow and Ice Pooled Fund Cooperative Program (SICOP)
- Advance Equipment Technology Operations (AETO) or Equipment Management Technical Services Program (EMTSP)
- Transportation System Preservation Technical Service Program (TSP<sup>2</sup>)
- Load and Resistance Factor Design (LRFD) Bridges and Structures Specification maintenance
- Development of AASHTO Materials Standards (DAMS)

### PROPOSED ACTIVITY – FY2011

- Provide continued support for NTPEP, APEL, TIG, SICOP, AETO, TSP<sup>2</sup>, LRFD, and DAMS programs
- Jeff Miles, Materials Engineer, is the ITD Project Manager for NTPEP, APEL, and DAMS
- Ned Parrish, Research Program Manager, is the ITD Project Manager for TIG
- Brent Jennings, Highway Operations and Safety Engineer, is the ITD Project Manager for SICOP
- Steve Spoor, Maintenance Program Manager, is the ITD Project Manager for AETO
- Brent Jennings, Highway Operations and Safety Engineer, and Mike Santi, Assistant Materials Engineer, are the ITD Project Managers for TSP<sup>2</sup>
- Matt Farrar, State Bridge Engineer, is the ITD Project Manager for LRFD

### COST

- FY2011: \$71,650 (\$57,320 Federal SPR (80/20)). The LRFD and DAMS Technical Service Programs were new in FY2010. We are budgeted funds to make both our FY2010 and FY2011 contributions for these programs.

### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/2011
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/2011
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
Comments: Reduced budgeted amount from \$71,700 to \$71,650 to reflect actual costs. Remaining funds shifted to research projects.				

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## ITEM 8.5 – NATIONAL AND REGIONAL POOLED FUND PROJECTS (2011)

This item contains descriptions of active pooled fund projects that ITD is a participant in for FY2011. A total of \$288,600 is budgeted for pooled funds costs.

### ITEM 8.5.1 – SPR-3(072)

#### IDENTIFICATION: SPR-3(072)

Title: Strength and Deformation Characteristics of Mechanically Stabilized Earth (MSE) Walls  
Research Agency: Royal Military College, Kingston, Ontario, Canada  
State Contact: Tony Allen, Washington DOT, [allent@wsdot.wa.gov](mailto:allent@wsdot.wa.gov)  
FHWA Contact: Not available  
Work Plan Approval: Approved  
ITD Key Number: 08756

#### OBJECTIVE

- Previous pooled fund studies on the durability of geosynthetics have resulted in the development of protocols that can be used to determine the long-term strength of geosynthetic reinforcement. This durability research focused on the resistance side of the internal stability equation. The load side of the internal stability equation has remained virtually unchanged for 20 years, even though it is recognized that the existing design procedures are overly conservative. For the last seven years, Washington Department of Transportation (WSDOT) has funded research on the prediction of loads and deformations in MSE walls, primarily focused on geosynthetic reinforcement. An improved  $K_o$  – Stiffness design methodology has been developed in the current pooled-fund project.
- The objective of this pooled fund study is to extend the improved design methodology to marginal quality backfill materials, i.e. silts. Some full-scale walls need to be designed with the  $K_o$  – Stiffness method and monitored to validate the method. The validation walls are needed by the AASHTO T-15 Technical Committee on Foundations and Walls, if the  $K_o$  – Stiffness method is to be incorporated into the AASHTO Load and Resistance Factor Design (LRFD) bridge specifications. The method will also need to be adapted to seismic design.
- The project began in 1999 and has included multiple phases over the past 10 years. The project is now expected to be completed by December 31, 2010 and the total cost for the project is estimated at approximately \$700,000.

#### PROPOSED ACTIVITY – FY2011

- Continue with development of database with information that will help further refine the K-Stiffness method. Efforts will also continue to calibrate the K-Stiffness Method for both geosynthetic reinforced soil walls and steel reinforced soil walls. The final report is to be written for all six phases
- Tri Buu, Geotechnical Engineer, is the ITD Project Manager

#### COST

- FY2011: Funding commitment met – no additional funding needed

## FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

ITEM 8.5.2 – TPF-5(035)

## IDENTIFICATION: TPF-5(035)

Title: Pacific Northwest Snowfighters  
Research Agency: Washington State Department of Transportation  
State Contact: Kim Willoughby, Washington DOT, [willouk@wsdot.wa.gov](mailto:willouk@wsdot.wa.gov)  
Work Plan Approval: Approved  
ITD Key Number: 08786

## OBJECTIVE

- Develop specifications for chemicals related to snow and ice control. Support winter maintenance professionals with information on current technologies, supplier contacts, and networking opportunities. Conduct research on maintenance chemicals and activities.

## PROPOSED ACTIVITY – FY2011

- Project was reopened in FY2007. This phase of the project is expected to be completed by December 31, 2010. The Qualified Products List (QPL) and deicer specifications can be viewed at <http://www.wsdot.wa.gov/partners/pns/resources.htm>. A draft report is expected the end of September.
- Ron Wright, Chemistry Lab Supervisor, is the ITD Project Manager.

## COST

- FY2011: Funding commitment met – no additional funding needed. A total of \$20,000 was paid in FY2010. This fulfilled our commitment for FY2010 and FY2011 at \$10,000 per year.

## FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

### ITEM 8.5.3 – TPF-5(054)

#### IDENTIFICATION: TPF-5(054)

Title: Development of Maintenance Decision Support System (MDSS)  
Research Agency: South Dakota Department of Transportation  
State Contact: David Huft, South Dakota Department of Transportation, [dave.huft@state.sd.us](mailto:dave.huft@state.sd.us)  
FHWA Contact: Not available  
Work Plan Approval: Approved  
ITD Key Number: 11959

#### OBJECTIVE

- Improve winter maintenance efficiency through the implementation of automated maintenance Decision Support Systems (MDSS). The pooled fund will pay for jointly agreed upon research activities and support meetings of state representatives to share experiences with MDSS.

#### PROPOSED ACTIVITY – FY2011

- Hold meetings of state representatives to share MDSS best practices. Continue research and development activities. ITD's Office of Highway Operations and Safety has initiated a pilot project in District 4 to assess the potential benefits of statewide implementation.
- Steve Spoor, Maintenance Services Manager, is the ITD Project Manager.

#### COST

- FY2011: Funding commitment met – no additional funding needed. A total of \$50,000 was paid in FY2010. This fulfilled our commitment for FY2010-FY2011 at \$25,000 per year.

#### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.4 – TPF-5(064)

### IDENTIFICATION: TPF-5(064)

Title: Western Alliance for Quality Transportation Construction (WAQTC)  
Research Agency: Utah Department of Transportation  
State Contact: Michael Fazio, Utah Department of Transportation, [mfazio@utah.gov](mailto:mfazio@utah.gov)  
FHWA Contact: Bernie Kuta, [Bernie.kuta@fhwa.dot.gov](mailto:Bernie.kuta@fhwa.dot.gov)  
Work Plan Approval: Approved  
ITD Key Number: 09127

### OBJECTIVE:

- Support the development and refinement of a training and qualification program for construction inspection and materials testing technicians by WAQTC.

### PROPOSED ACTIVITY – FY2011:

- WAQTC is implementing a Transportation Technician Qualification Program (TTQP), and a Laboratory Qualification Program (LQP). More information can be found on their website: [www.waqtc.org](http://www.waqtc.org). Project completion date is now October 1, 2011.
- Jeff Miles, materials Engineer, and Garth Newman, Training Specialist, serve as the ITD Project Managers.

### COST:

- FY2011: Funding commitment met – no additional funding needed. Item included in the Work Program to show program activity for FY2011. Funding comes from the Division of Highways.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.5 – SPR-5(074)

### IDENTIFICATION: SPR-5(074)

Title: Evaluation of Pre-Stressed Losses in Long-Span Post-Tensioned Bridges  
Research Agency: California Department of Transportation  
State Contact: Charles Sikorsky, California Department of Transportation, [Charles\\_sikorsky@dot.ca.gov](mailto:Charles_sikorsky@dot.ca.gov)  
FHWA Contact: Joey Harmann, [joey.harmann@fhwa.dot.gov](mailto:joey.harmann@fhwa.dot.gov)  
Work Plan Approval: Approved  
ITD Key Number: 09304

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### OBJECTIVE

- In the new AASHTO LRFD Specification, the approximated method for evaluating pre-stress losses only applies to spans less than 160 feet in length, and the refined method for spans less than 240 feet long. If losses are overestimated, excessive camber and improper drainage could result. If underestimated, cracking could occur.
- The overall objective is to assess the time dependent “lump sum” and refined pre-stress loss estimates based on the current AASHTO LRFD Bridge Design Specification. Previous or more recent research that shows promise will be reviewed. Changes to the current loss models will be suggested and the models assessed by long-term field measurements.

### PROPOSED ACTIVITY – FY2011

- Data collection continues on bridges included in the study. A draft report has been submitted and the final report is expected to be distributed in October 2010. Project closeout is expected in FFY2011.
- Matt Farrar, Bridge Engineer, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.6 – TPF-5(090)

### IDENTIFICATION: TPF-5(090)

Title: Pavement Tools Consortium  
Research Agency: University of Washington  
State Contact: Leni Oman, Washington Department of Transportation, [omanl@wsdot.wa.gov](mailto:omanl@wsdot.wa.gov)  
FHWA Contact: Katherine Petros, [Katherine.petros@fhwa.dot.gov](mailto:Katherine.petros@fhwa.dot.gov)  
Work Plan Approval: Approved  
ITD Key Number: 09307

### OBJECTIVE:

- In May 2000, the University of Washington embarked on a project for the development of a set of pavement tools that can be used by a DOT or paving contractor to improve communication, training, and design/construction for the pavement topic area.
- The objective of the Pavement Tools Consortium is to develop and use hot mix asphalt (HMA) – oriented, computer-based pavement tools. The major focus is the enhancement of pavement-related training and construction. Examples of the tools include HMA View Database, Interactive Training, Computer Simulations, Distance Learning Content, and Computation Software.

### PROPOSED ACTIVITY – FY2011:

- Continue to add and update “main” articles in the Pavement Interactive (PI). Work on the draft final report. The project will wrap up in 2013.
- Muhammed Zubery, Quality Assurance Engineer, or Mike Santi, Assistant Materials Engineer, serves as the ITD Technical Committee Representatives.

### COST:

- FY2011: Funding commitment met – no additional funding needed.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.7 – TPF-5(237)

### IDENTIFICATION: TPF-5(237)

Title: Transportation Library Connectivity  
Research Agency: Missouri Department of Transportation  
State Contact: AJ Million, Missouri Department of Transportation, anthony.million@modot.mo.gov

Work Plan Approval: Approved  
ITD Key Number: 11460

### OBJECTIVE

- Facilitate development of a transportation library at ITD in collaboration with other northwest DOT libraries. Provide access to the Online Computer Library Center (OCLC), which will make it easier for ITD staff to obtain information about research and best practices in other states.

### PROPOSED ACTIVITY – FY2011

- Efforts will continue to develop Regional Transportation Knowledge Networks (TKNs). The Transportation Librarian's Toolkit has been updated and new content will continue to be added. Missouri DOT will be taking over as lead state.
- Inez Hopkins, Senior Research Analyst, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed. A total of \$40,000 was paid in FY2010. This fulfilled our commitment for FY2010-FY2013 at \$10,000 per year.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.8 – TPF-5(145)

### IDENTIFICATION: TPF-5(145)

Title: Western Maintenance Partnership  
Research Agencies: Utah Department of Transportation  
State Contact: Michael Fazio, Utah Department of Transportation, [mfazio@utah.gov](mailto:mfazio@utah.gov)  
FHWA Contact: Celso Gatchalian, [celso.gatchalian@fhwa.dot.gov](mailto:celso.gatchalian@fhwa.dot.gov)  
Work Plan Approval: Approved  
ITD Key Number: 10973

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### OBJECTIVE

- Provide a partnering forum for promoting effective maintenance strategies to meet the following objectives: provide funds for multi-day annual workshop; define, support, and share technology of mutual interest; provide funds for formal training presentations; and provide funds for special studies, investigations, research, and training.

### PROPOSED ACTIVITY – FY2011

- An annual workshop will be held to exchange information about state maintenance programs in participating states. The workshop will also include formal training presentations.
- Steve Spoor, Maintenance Services Manager, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed in FY2011. Funding has been provided by the Division of Highways.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.9 – TPF-5(154)

### IDENTIFICATION: TPF-5(154)

Title: Census Transportation Planning Products (CTPP)  
Research Agency: Federal Highway Administration  
FHWA Contact: Elaine Murakami, [Elaine.murakami@fhwa.dot.gov](mailto:Elaine.murakami@fhwa.dot.gov)  
Work Plan Approval: Approved  
ITD Key Number: 10972

### OBJECTIVE

- Over the five-year period, the CTPP pooled fund project will support a family of activities, including data products, on-demand technical assistance, training, and research.

### PROPOSED ACTIVITY – FY2011

- Workplace allocation research data access software will be developed. CTPP Profile Sheets are posted on AASHTO's CTPP webpage and FHWA's CTPP webpage. The project will be completed in 2012.
- Sonna Lynn Fernandez, Intermodal Planning Manager, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 8.5.10 – TPF-5(171)

### IDENTIFICATION: TPF-5(171)

Title: Evaluation of Non-Intrusive Traffic Detection Technologies – Phase III  
Research Agency: Minnesota Department of Transportation  
State Contact: Jerry Kotzenmacher, Minnesota Department of Transportation, jerry.kotzenmacher@dot.state.mn.us  
FHWA Contact: Steven Jessberger, [steven.jessberger@fhwa.dot.gov](mailto:steven.jessberger@fhwa.dot.gov)  
ITD Key Number: 11459

### OBJECTIVE

- Conduct field tests of the latest generation of non-intrusive traffic sensors in order to assess their capabilities and limitations in a variety of test conditions. Specific test conditions will be driven by the needs of participating state agencies.

### PROPOSED ACTIVITY – FY2011

- Writing draft of final report.
- Glenda Fuller, Roadway Data Section Manager, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

**IDENTIFICATION: TPF-5(174)**

Title: Construction of Crack-Free Concrete Bridge Decks  
 Research Agency: University of Kansas  
 State Contact: Rodney Montney, Kansas Department of Transportation, [rodney@ksdot.org](mailto:rodney@ksdot.org)  
 FHWA Contact: Joey Hartmann, [joey.hartmann@fhwa.dot.gov](mailto:joey.hartmann@fhwa.dot.gov)  
 Work Plan Approval: Approved  
 ITD Key Number: 09065

**OBJECTIVE**

- Considerable research has been done on the causes of cracking over the past years, but few of the findings have been implemented.
- The purpose of this study is to implement the most cost-effective techniques for improving bridge deck life through the reduction of cracking. The work involves cooperation between state departments of transportation, cement companies, contractors, and designers. Estimated completion date for this project is June 30, 2013.

**PROPOSED ACTIVITY – FY2011**

- The project team will update plans; perform laboratory work to establish best practices; modify bridge designs; and update construction specifications, procedures, techniques, and materials requirements. The researchers will continue selecting and scheduling bridges for construction. Following construction, detailed crack surveys will be done at six month, one-, two-, and three-year intervals.
- Matt Farrar, State Bridge Engineer, is the ITD Project Manager.

**COST**

- FY2011: Funding commitment met – no additional funding needed. A total of \$70,000 was committed for this pooled fund from FY2008 – FY2012. \$14,000 was paid in FY2008 and FY2009, and the remaining \$42,000 was paid in FY2010. This fulfilled our commitment through FY12 at \$14,000 per year.

**FY2011 CHANGES**

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 8.5.12 – TPF-5(190)

### IDENTIFICATION: TPF-5(190)

Title: Northwest Passage – Phase III  
Research Agency: Minnesota Department of Transportation  
State Contact: Ginny Crowson, Minnesota Department of Transportation,  
[ginny.crowson@dot.state.mn.us](mailto:ginny.crowson@dot.state.mn.us)  
FHWA Contact: Raj Ghaman, [Raj.Ghaman@fhwa.dot.gov](mailto:Raj.Ghaman@fhwa.dot.gov)  
Work Plan Approval: Approved  
ITD Key Number: 11895

### OBJECTIVE

- Northwest Passage Corridor encompasses the states along I-90/I-94 from Wisconsin to Washington. The purpose of the pooled fund is to influence ongoing standards development and utilize effective methods for sharing, coordinating, and integrating traveler information across state borders. Improving coordination of traveler information is the initial focus, while coordinated maintenance, operations, planning, and programming are long-term visions.

### PROPOSED ACTIVITY – FY2011

- This year researchers will work to: enhance the traveler information website ([www.i90i94travelinfo.com](http://www.i90i94travelinfo.com)), research call forwarding between states, and explore regional permitting for the corridor as well as detailing center-to-center communications between states.
- Robert Koeberlein, Mobility Services Engineer, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed. Total commitment amount for this pooled fund was \$50,000 paid in FY2009 and FY2010.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.13 – TPF-5(191)

### IDENTIFICATION: TPF-5(191)

Title: Northwest Transportation Consortium  
Research Agency: ATRC (University of Alaska, Fairbanks)  
Oregon Transportation Research and Education Consortium (Oregon State University and Portland State University)  
State Contact: Tim Carlile, Washington Department of Transportation, [carlilti@wsdot.wa.gov](mailto:carlilti@wsdot.wa.gov)  
FHWA Contact: Not Available  
Work Plan Approval: Approved  
ITD Key Number: 11896

### OBJECTIVE

- This project is a cooperative effort by the DOTs and University Transportation Centers (UTCs) in the Northwest: Alaska, Idaho, Oregon, and Washington. The purpose of the project is to assess the likely impacts of climate change on the surface transportation systems in the Pacific Northwest and Alaska. The study is focusing on the impacts in inland, as well as coastal areas, and will recommend adaptation strategies for state DOT consideration.
- The total cost of the project will be \$200,000, with each DOT contributing \$25,000 and the participating UTCs providing matching funds totaling \$100,000. The Oregon Transportation Research and Education Consortium has also agreed to provide \$5,000 in in-kind services to develop education and outreach materials.

### PROPOSED ACTIVITY – FY2011

- Complete research on climate change in Alaska, Idaho, Oregon, and Washington and the likely impact of these changes on the surface transportation systems in the region. Prepare final report. The project is expected to be completed in FY2011.
- Ned Parrish, Research Program Manager, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.14 – TPF-5(192)

### IDENTIFICATION: TPF-5(192)

Title: Loop- and Length-Based Classification Pooled Fund  
Research Agency: Minnesota Department of Transportation  
State Contact: Sue Lodahl, Minnesota Department of Transportation, [sue.lodahl@dot.state.mn.us](mailto:sue.lodahl@dot.state.mn.us)  
FHWA Contact: Steven Jessberger, [steven.jessberger@fhwa.dot.gov](mailto:steven.jessberger@fhwa.dot.gov)  
Work Plan Approval: Approved  
ITD Key Number: Paid by Roadway Data section

### OBJECTIVE

- Field test installation methods for loops to determine the most cost effective and best performing procedures and materials. Determine the number of bins and the length spacing for each of those bins for uniform collection of length-based classification data. Establish calibration standards for vehicle length-based measurements. The scheduled completion date is December 31, 2011.

### PROPOSED ACTIVITY – FY2011

- Work is commencing. Experimental design will be completed. Field testing will begin.
- Glenda Fuller, Roadway Data Section Manager, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed. Included in the Work Program to show program activity for FY2011. Funding was provided by the Roadway Data Section.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.15 – TPF-5(209)

### IDENTIFICATION: TPF-5(209)

Title: Transportation Curriculum Coordination Council (TCCC) Training Management and Development

Research Agency: National Highway Institute

FHWA Contact: Christopher Newman, [Christopher.newman@fhwa.dot.gov](mailto:Christopher.newman@fhwa.dot.gov)

Work Plan Approval: Approved

ITD Key Number: 12275

### OBJECTIVE

- Provide leadership at a national level, develop and maintain a national curriculum for various transportation disciplines, identify training and certification requirements, and coordinate/facilitate training efforts. This is a five-year project.

### PROPOSED ACTIVITY – FY2011

- TCCC will develop a core curriculum matrix that will be used as a guide to determine training requirements and options available to meet those requirements. Development of a website, accessible to all construction personnel, for the purpose of disseminating information such as training requirements/courses, contact persons, and TCCC activities and news. The website address is [www.nhi.fhwa.dot.gov/tccc](http://www.nhi.fhwa.dot.gov/tccc).
- Garth Newman, Training Specialist, is the ITD Project Manager.

### COST

- FY2011: Funding commitment met – no additional funding needed. A total of \$25,000 was paid in FY2010. This fulfilled our commitment for FY2010 – FY2014 at \$5,000 per year.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.5.16 – TPF-5(240)

### IDENTIFICATION: TPF-5(240)

Title: Core Program Services for a Highway Research Development and Technology Program  
Research Agency: Federal Highway Administration  
FHWA Contact: Jean Landolt, [Jean.Landolt@dot.gov](mailto:Jean.Landolt@dot.gov)  
Work Plan Approval: Annual Agreement  
ITD Key Number: 12902

### OBJECTIVE

- To provide a mechanism for state transportation departments to support TRB core program services. This pooled fund study permits states to make their contributions to the TRB Core Programs through the pooled fund process instead of sending their contributions to TRB directly.

### PROPOSED ACTIVITY – FY2011

- Continue annual support for TRB Core Services.
- Ned Parrish, Research Program Manager, is the ITD Project Manager.

### COST

- FY2011: \$86,855 (100% Federal SPR).

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 8.5.17 – TPF-5(229)

### IDENTIFICATION: TPF-5(229)

Title: Characterization of Drainage Layer Properties for Mechanistic-Empirical Pavement Design Guide (MEPDG)  
Research Agency: Virginia Department of Transportation  
State Contact: Brian Diefenderfer, Virginia Department of Transportation,  
[Brian.Diefenderfer@VDOT.Virginia.gov](mailto:Brian.Diefenderfer@VDOT.Virginia.gov)  
FHWA Contact: James Sherwood, [Jim.Sherwood@fhwa.dot.gov](mailto:Jim.Sherwood@fhwa.dot.gov)  
Work Plan Approval: Approved  
ITD Key Number: 12896

### OBJECTIVE

- Develop methods to characterize the elastic modulus and strength of drainage layers for MEPDG, perform analysis of the stability and failure of the drainage layer in the pavement structure, and develop specifications for required minimum porosity for effective drainage.

### PROPOSED ACTIVITY – FY2011

- Develop testing methods or modify/adapt existing methods to characterize the elastic modulus and strength of asphalt concrete, other bounded materials, or granular materials at high porosity. It is anticipated that triaxial tests and a portable ultrasound test device will be used.
- Mike Dehlin, Pavement Development Engineer, is the ITD Project Manager.

### COST

- FY2011: \$60,000 (100% Federal SPR). Committed \$30,000 per year for FY2010 – FY2012. This pooled fund was not cleared by FHWA to accept funds until after FY2010. We are budgeting \$60,000 to honor our commitment for FY2010 and FY2011.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

**IDENTIFICATION: TPF-5(231)**

Title: ITS Pooled Fund Program (ENTERPRISE)  
 Research Agency: Michigan Department of Transportation  
 State Contact: Lee Nederveld, [NederveldL@michigan.gov](mailto:NederveldL@michigan.gov)  
 FHWA Contact: Ray Murphy, [ray.murphy@fhwa.dot.gov](mailto:ray.murphy@fhwa.dot.gov)  
 Work Plan Approval: Approved  
 ITD Key Number: 12897

**OBJECTIVE**

- Investigate and promote Intelligent Transportation System (ITS) approaches and technologies that are compatible with other national and international ITS initiatives
- Support the individual ITS program plans of ENTERPRISE participants, provide a mechanism to support multistate and international project cooperation and technical information interchange
- Facilitate the formation of public-private partnerships for appropriate program activities
- Pursue emerging ITS project opportunities in areas of interest to the group
- Provide test beds in a variety of environments and locations for emerging ITS technologies
- Identify common needs within the group and proceed with appropriate technical activities

**PROPOSED ACTIVITY – FY2011**

- Develop work plan for the upcoming phase of projects through a collaborative process.
- Robert Koeberlein, Mobility Services Engineer, is the ITD Project Manager.

**COST**

- FY2011: \$101,745 (100% Federal SPR). Committed \$30,000 per year for FY2010 – FY2014. This pooled fund was not cleared by FHWA to accept funds until after FY2010. We are budgeting \$101,745 to honor our commitment for FY2010, FY2011, FY2012, and a partial payment of \$11,745 for FY2013.

**FY2011 CHANGES**

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/2011
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/2011
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments: Shifted \$41,175 budgeted for other pooled fund payments to this pooled fund to cover our contribution for FY2012 and part of our contribution for FY 2013. Increased total payment amount in FY 2011 from \$60,000 to \$101,745.</b>				

## ITEM 8.5.19 – SOL. 1250 Removed from Program

### IDENTIFICATION: SOL. 1250 (Solicitation Withdrawn by Utah Department of Transportation)

Title: WASHTO-X Pooled Fund  
Research Agency: Utah Department of Transportation  
State Contact: Michael Fazio, [mfazio@utah.gov](mailto:mfazio@utah.gov)  
FHWA Contact: Betty Bangerter, [betty.bangerter@dot.gov](mailto:betty.bangerter@dot.gov)  
Work Plan Approval: Pending FHWA Approval  
ITD Key Number: To be determined

### OBJECTIVE

- Plan and deliver ten interactive video/web conferencing sessions on subjects of interest as requested by partner states, improve the program as specified by the WASHTO-X Program Steering Committee, and gather information related to the benefits, costs, problems encountered, and lessons learned during the year.

### PROPOSED ACTIVITY – FY2011

- Identify topics of interest to participating state DOTs and initiate joint video/web conferences.
- Ned Parrish, Research Program Manager, is the ITD Project Manager.

### COST

- FY2011: \$0

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed: 5/18/2011
<b>Comments: This pooled fund did not receive sufficient funding commitments to move forward. We reallocated the funding budgeted for this pooled fund to other pooled funds as noted elsewhere in the work program.</b>			

**IDENTIFICATION: TPF-5(238)**

Title: Design and Fabrication Standards to Eliminate Fracture Critical Concerns in Two Girder Bridge Systems

Research Agency: Indiana Department of Transportation

State Contact: Tommy Nantung, [tnantung@indot.in.gov](mailto:tnantung@indot.in.gov)

FHWA Contact: Justin Ocel [justin.ocel@dot.gov](mailto:justin.ocel@dot.gov)

Work Plan Approval: Approved

ITD Key Number: 12900

**OBJECTIVE**

- Establish guidance that provides a high level of bridge safety that can then form the basis for in-service inspection decisions. When considering the estimated projects' costs, it must be recognized that the results of this research will be transformative for the steel bridge industry. For the first time, material selection, design, and inspection will be rationally integrated to eliminate fracture concerns. This can result in significant cost savings for medium and long span bridges and facilitate introduction of modular concepts for short span bridges.

**PROPOSED ACTIVITY – FY2011**

- Initiate experimental study of fracture in I-girders to determine supplemental toughness requirements, including full-scale fracture tests and fracture mechanics tests.
- Matt Farrar, State Bridge Engineer, is the ITD Project Manager.

**COST**

- FY2011: \$40,000 (100% Federal SPR). ITD's Research Advisory Council voted to commit a total of \$60,000 (\$20,000 annually) in FY2010 – FY2012. This pooled fund was not cleared by FHWA to accept funds until after FY2010. We are budgeting \$40,000 to honor our commitment for FY2010 and FY2011.

**FY2011 CHANGES**

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

**IDENTIFICATION: TPF-5(251)**

Title: Relative Operational Performance of Geosynthetics Used as Subgrade Stabilization  
 Research Agency: Montana Department of Transportation  
 State Contact: Craig Abernathy, [cabernathy@mt.gov](mailto:cabernathy@mt.gov)  
 FHWA Contact: Not available  
 Work Plan Approval: Approved  
 ITD Key Number: To be determined

**OBJECTIVE**

- Identify the geosynthetic properties that are most directly related to the strengthening of the weak subgrade soils. The research results will be used to develop specifications for geosynthetic materials used to stabilize weak subgrade soils.

**PROPOSED ACTIVITY – FY2011**

- Initiate project. Establish technical advisory committee. Begin building 13 test sections, 11 with geosynthetics and at least two controls (i.e., no geosynthetic).
- Tri Buu, Geotechnical Engineer, is the ITD Project Manager.

**COST**

- FY2011: \$0 (100% Federal SPR). ITD's Research Advisory Council voted to commit a total of \$60,000 (\$30,000 annually) in FY2011 – FY2012. This pooled fund was slow to receive the commitments necessary to move the project forward. By an e-mail vote, ITD's Research Advisory Council voted to increase the commitment to \$90,000 (\$45,000 annually) in FY2012 and FY2013.

**FY2011 CHANGES**

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/2011
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/2011
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	

**Comments:** Eliminated funding budgeted for this pooled fund in FY 2011 because funding commitments from other states weren't received until late in the year. Shifted funding to other pooled funds. Funding for this pooled fund will be budgeted in FY2012 and 2013.

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## ITEM 8.6 – 2009 COOPERATIVE RESEARCH PROJECTS (UNIVERSITY OF IDAHO)

### IDENTIFICATION: Research Projects 191, 192, and 193

Title: Cooperative Transportation Research Program  
Research Agency: University of Idaho (NIATT, SSRU)  
Work Plan Approved: Yes, previously authorized

This item outlines the cooperative research projects with the University of Idaho's National Institute for Advanced Transportation Technology (NIATT) that were awarded for FY2009. Descriptions of each project are provided below.

### ITEM 8.6.1 – RESEARCH PROJECT 191

#### IDENTIFICATION: Research Project 191

Title: Potential Crash Reduction Benefits of Safety Improvement Projects  
Research Agency: University of Idaho (NIATT)  
Work Plan Approval: Yes, previously authorized

#### OBJECTIVE

- This project includes research to aid ITD in assessing the impact of safety investments. The research will evaluate the effectiveness of selected crash countermeasures currently in use, and those being considered for implementation, on Idaho's state highways. The data will enable ITD to make informed safety improvement decisions by revealing the characteristics of crashes and assessing the safety impacts and cost-effectiveness of countermeasures.
- The project objectives are:
  1. Identify the effectiveness of shoulder and centerline rumble strips in reduction of run-off-the road crashes and head-on collisions.
  2. Identify the effectiveness of durable pavement marking in reducing the number and severity of crashes.
  3. Identify potential safety benefits of using advance warning signals and advance detection on high-speed signalized intersections.
  4. Investigate and document the characteristics of crashes at railroad crossings and recommend possible crash countermeasures to reduce the number and severity of these crashes.
  5. Investigate and document the characteristics of vehicle/animal crashes in Idaho and recommend possible crash countermeasures to reduce the number and severity of these crashes based on the NCHRP Synthesis.
  6. Review and document possible measures to improve the safety of elderly drivers.
- The project began in January 2009 and originally was to be completed in 13 months. The estimated project cost was \$67,968 (\$54,375 Federal SPR (80-/20)).
- Brent Jennings, Highway Operations and Safety Engineer, is the ITD Project Manager.

#### PROPOSED ACTIVITY – FY2011

- Researchers submitted initial report drafts to ITD for review. As part of this review, FHWA recommended extending the study for a year so additional data could be included in the analysis. A final report including 2010 data will be submitted in the spring of 2011.

#### COST

- Funding for the project was originally encumbered in FY2009. We are budgeting \$16,000 in FY2011 to cover the costs of the additional analysis.

**FY2011 CHANGES**

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 8.6.2 – RESEARCH PROJECT 192

### IDENTIFICATION: Research Project 192

Title: Native Plants for Roadside Revegetation  
Research Agency: University of Idaho (NIATT, SSRU)  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- This project focuses on the use of native plants for roadside construction and/or maintenance projects. The results from the project will be used for future revegetation efforts on construction projects, restoring natural habitats, improving wetland mitigation, and developing native plant gardens in rest areas.
- The project objectives are:
  1. Research and evaluate the reintroduction of native plants along interstates and state highways for ease of establishment, site adaptability, effectiveness of erosion control, and prevention of weed encroachment.
  2. Research and evaluate existing native plant populations in respect to slope stabilization, species establishment, and effectiveness of native plant establishment on existing weed population.
  3. Test and evaluate techniques used to facilitate establishment of native vegetation in areas affected by road construction and maintenance activities.
  4. Collect field data on plant germination and initial plant establishment.
  5. Evaluate the longevity of establishment and effectiveness of native species in highly altered nutrient deprived site conditions.
  6. Review and reevaluate plant species from previous research projects suitable for this project.
  7. Identify specific plant species and site selections that display characteristics best suited for Idaho roadside vegetation.
  8. Provide results and documentation from this project to ITD staff.
  9. Update revegetation practices in department manuals.
  10. Develop training workshops for ITD personnel using effective roadside revegetation techniques.
- The completion date for this project is set for December 31, 2011. The estimated project cost is \$146,288 (\$117,031 Federal SPR (80/20)).
- Cathy Ford, Roadside Programs Coordinator, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Conduct data analysis. Develop material for training and presentation for ITD workshops. Do manual updates. Submit a draft and final report for ITD/FHWA.

### COST

- FY2009 and FY2010 funds were encumbered to cover project costs. As a result, no additional funds are budgeted for FY2011. The project is included in the Work Program to show program activity in FY2011.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:

Comments:

### ITEM 8.6.3 – RESEARCH PROJECT 193

#### IDENTIFICATION: Research Project 193

Title: Implementation of the Mechanistic Empirical Pavement Design Guide (MEPDG) for Flexible Pavements in Idaho  
Research Agency: University of Idaho (NIATT, SSRU)  
Work Plan Approval: Yes, previously authorized

#### OBJECTIVE

- The purpose of this project is to develop and execute an implementation plan for MEPDG in Idaho. The team will work cooperatively with the materials and planning sections at ITD to develop the required data from all state regions as required and specified by the NCHRP 1-37A and the NCHRP 1-140 projects.
- The project objectives are:
  1. Review and understand the latest version of the MEPDG software.
  2. Develop and establish material database for the various material layers in the state.
  3. Develop traffic load spectra for various axle loads operating on various road classes.
  4. Develop software that enables ITD engineers to analyze the weigh-in-motion (WIM) data and develop the required load spectra at a given location.
  5. Establish climatic factors for the various regions.
  6. Study the sensitivity of the MEPDG for the variations considered in traffic, materials, and climates, and develop recommendations for the appropriate design level and reliability levels to be adopted with the implementation plan.
  7. Develop a training workshop for ITD engineers for the software and the design process as per the MEPDG procedures.
- The duration of this project is 24 months. The project completion date is set for December 31, 2011. The estimated project cost is \$187,822 (\$150,258 Federal SPR (80/20)).
- Jeff Miles, Materials Engineer, is the ITD Project Manager.

#### PROPOSED ACTIVITY – FY2011

- Review other state agency's implementation efforts. Establish an input database for material properties, traffic load spectra, and climatic factors. Determine performance and reliability design criteria. Implement research and products and training. Submit draft to ITD/FHWA.

#### COST

- FY2009 and FY2010 funds were encumbered to cover project costs. As a result, no additional funds are budgeted for FY2011. The project is included in the Work Program to show program activity in FY2011.

#### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.7 – 2009 COOPERATIVE RESEARCH PROJECTS (BOISE STATE UNIVERSITY)

### IDENTIFICATION: Research Project 194

Title: Cooperative Transportation Research Program  
Research Agency: Boise State University  
Work Plan Approval: Yes, previously authorized

This Item is for a cooperative research project that was awarded to Boise State University for FY2009. The project was selected for funding by ITD's Research Advisory Council in April 2008. The following is a description of the project:

### ITEM 8.7.1 – RESEARCH PROJECT 194

### IDENTIFICATION: Research Project 194

Title: Investigation of Concrete Sealer Products to Extend Concrete Pavement Life  
Research Agency: Boise State University  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- This project will use lab analysis and long-term field observation to measure the sealer effects and impacts under true field conditions in southwestern Idaho in order to extend the longevity of the pavements.
- The project objectives are:
  1. Evaluate the best classes of concrete sealing products from consideration of literature results and prior working knowledge of chemical sealer compounds and any ITD project applications (specifically the upcoming Mountain Home area field applications tests), including, but not limited to methacrylates, epoxies, silicates, silanes, and siloxanes.
  2. Develop a short list of compounds (including specific ones requested by ITD) and determine recommended application rates of the short list of compounds to be evaluated for future field trials on new and existing roadway locations in southwestern Idaho.
  3. Prepare laboratory techniques and select the appropriate potential laboratory and field evaluation techniques to test effectiveness of each concrete pavement sealer in retarding crack propagation.
  4. Test some of the best compounds on samples of concrete from roadways from around the state.
  5. Prepare recommendations on the best sealer compound(s) and long-term evaluation techniques to check effectiveness.
- The project began in October 2008 and will be completed by November 2010. The estimated total project cost is \$94,000 (\$75,200 Federal SPR (80/20)).
- Keith Nottingham, District 3 Geologist, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Complete review and revision of the report. Issue final report.

### COST

- FY2010 funds were encumbered to cover the costs for this project. As a result, no additional funds are budgeted for FY2011. The project is included in the Work Program to show program activity in FY2011.

**FY2011 CHANGES**

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 8.8 – 2010 COOPERATIVE RESEARCH PROJECTS (UNIVERSITY OF IDAHO)

### IDENTIFICATION: Research Projects 199 and 200

Title: Cooperative Transportation Research Program  
Research Agency: University of Idaho (NIATT)  
Work Plan Approval: Yes, previously authorized

This item outlines the cooperative research projects with the University of Idaho's National Institute for Advanced Transportation Technology (NIATT) that were awarded for FY2010. Descriptions of each project are provided below.

### ITEM 8.8.1 – RESEARCH PROJECT 199

#### IDENTIFICATION: Research Project 199

Title: Study of the Effectiveness of ITD's Pavement Design Method  
Research Agency: University of Idaho (NIATT)  
Work Plan Approval: Yes, previously authorized

#### OBJECTIVE

- This project will evaluate existing ITD design methodologies to determine if they are still applicable to current needs or if modifications can improve performance and reduce costs.
- The project objectives are:
  1. Determine which flexible-pavement design method(s) (with emphasis on surfacing thickness) provides the most economical design.
  2. Review selected District projects designed with the current ITD design methods, for performance and longevity.
  3. Review District projects designed with variations from the standard and provided recommendation on continued or expanded use if research warrants.
  4. Review ITD traffic projection models to determine if Equivalent Single Axle Load (ESAL) values are consistent with other states' calculated values and if projected truck volumes exceed roadway capacities.
  5. Provide recommendations of any proposed changes.
- The expected duration of this project is 18 months. The estimated cost is \$96,800 (\$77.440 Federal SPR (80/20)).
- The ITD Project Managers are Mike Santi, Assistant Materials Engineer; Jeff Drager, Materials Engineer; and Mike Dehlin, Pavement Design Engineer.

#### PROPOSED ACTIVITY – FY2011

- Evaluate pavement performance using MEPDG. Develop recommendations for proposed changes to ITD pavement design parameters. Submit report outline and summary of key findings, conclusions, and recommendations to ITD. Final report to ITD/FHWA.

#### COST

- FY2010 funds were encumbered to cover the costs for this project. As a result, no additional funds are budgeted for FY2011. The project is included in the Work Program to show program activity in FY2011.

**FY2011 CHANGES**

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 8.8.2 – RESEARCH PROJECT 200

### IDENTIFICATION: Research Project 200

Title: Relationship of Shoulder Width and Lane Width to Crash Rates  
Research Agency: University of Idaho (NIATT)  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- This project will help Idaho determine the appropriate shoulder widths and lane widths to minimize crash rates.
- The project objectives are:
  1. Evaluate the relationship between shoulder width and crash rates on similar roadways within Idaho.
  2. Evaluate the relationship between lane width and crash rates on similar roadways with Idaho.
  3. Develop a guideline for determining the cost-effectiveness of various land a shoulder widths.
  4. Create a Geographic Information System (GIS) map to show the relationship of AADT, crash rates, lane widths and shoulder widths on Idaho roadways.
- The expected duration of this project is 16 months. The estimated project cost is \$74,540 (\$59,632 Federal SPR (80/20)).
- Kelly Campbell, Principal Research Analyst, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Identify test road segments and review historic crash data for the segments. Analyze the data. Create accident modification factors for shoulder and lane widths for Idaho (or cost/benefit ratios). Prepare a final report and make an executive presentation to ITD.

### COST

- FY2010 funds were encumbered to cover the costs for this project. As a result, no additional funds are budgeted for FY2011. The project is included in the Work Program to show program activity in FY2011.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

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## ITEM 8.9 – 2011 COOPERATIVE RESEARCH PROJECTS (UNIVERSITY OF IDAHO)

### IDENTIFICATION: Research Projects 204, 205A, 211, and 212

Title: Cooperative Transportation Research Program  
Research Agency: University of Idaho  
Work Plan Approval: Approved

This section describes new projects planned for FY2011 with the University of Idaho. The total cost of the projects is estimated at \$421,000. Approximately \$70,000 was encumbered in FY2010 for these projects and an additional \$325,664 is budgeted in FY2011 to cover costs for these projects. Funds needed for the remaining project costs will be budgeted in FY2012.

### ITEM 8.9.1 – RESEARCH PROJECT 204

### IDENTIFICATION: Research Project 204

Title: A Tool for Identifying Bicycle Route Suitability, Coverage, and Continuity  
Research Agency: University of Idaho  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- To create a tool that Local Mobility Management Networks can use to assess existing bike coverage, determine route suitability, and identify route continuity gaps.
- The project objectives are:
  1. Collect and analyze existing street and bicycle networks.
  2. Document existing bicycle suitability indices used in Idaho communities and nationwide.
  3. Vetting bicycle suitability indices through Local Mobility Management Networks, advocacy groups, MPOs and ITD.
  4. Document existing and planned/programmed facilities.
  5. Identify challenges of multi-jurisdiction planning and limited funding.
  6. Deliver a bicycle route index consisting of suitability criteria.
  7. Deliver a GIS application that will be used to visually identify gaps in the bicycle network.
  8. A research report that summarizes the research and work processes along with the results of the analysis.
- This project will begin in January 2011 and will be completed by February 2012. The estimated project cost is \$50,000 (\$40,000 Federal SPR (80/20)).
- Maureen Gresham, Bicycle and Pedestrian Planning Coordinator, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Deliver a bicycle route index, a GIS application for bicycle network, and a research report.

### COST

- A total of \$50,000 (40,000 Federal SPR funds (80/20)), is being budgeted to cover planned costs for this project.

## FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments:</b>			

## ITEM 8.9.2 – RESEARCH PROJECT 205A

### IDENTIFICATION: Research Project 205A

Title: 2011 ITD Customer Survey  
Research Agency: University of Idaho (NIATT, SSRU)  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- Conducting the survey will allow ITD to measure current satisfaction with department services and determine how satisfaction levels have changed since the original study. The survey results will be used as a management tool to help target needed improvements within ITD.
- The project objectives are:
  1. Review the survey instruments used in the 2009 study and identify any needed modifications.
  2. Assess customer satisfaction with ITD services.
  3. Measure changes in customer satisfaction since the 2009 survey.
  4. Identify areas for improvement.
  5. Prepare a report summarizing findings and recommendations.
  6. Implementation of recommendations coordinated by ITD's Customer Service Council working with the Department's leadership and the Board.
- The project will begin in May 2011 and will be completed by December 2011. The estimated project cost is \$46,000 (\$36,800 Federal SPR (80/20)).
- Ned Parrish, Research Manager, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Develop a modified instrument that improves upon the survey used in the 2009 study. Conduct the telephone survey. Submit frequency tables for each survey item. Researchers and project team will meet to discuss survey results. Follow-up calls will be made as needed to clarify issues identified in the survey. A report outline will be developed.

### COST

- A total of \$46,000 (\$36,800 Federal SPR funds (80/20)), is being budgeted to cover planned costs for this project.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

## ITEM 8.9.3– RESEARCH PROJECT 211

### IDENTIFICATION: Research Project 211

Title: Calibration of the DARWin-Me Performance Models for Flexible Pavements in Idaho  
Research Agency: University of Idaho (NIATT)  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- Developing local calibration (adjustment) factors for the MEPDG predictive models for flexible pavement design will ensure a successful implementation of MEPDG in Idaho.
- The project objectives are:
  - Review of the MEPDG flexible pavements distress prediction models.
  - Evaluate the inputs required for the MEPDG for the design of new flexible pavement systems.
  - Identify Long-Term Pavement Performance (LTPP) and other pavement sections in Idaho for performance calibration.
  - Develop a performance database required for the MEPDG calibration for the identified pavement sections.
  - Run the MEPDG (using the nationally calibrated models) with the assembled database.
  - Develop Idaho Calibration factors: calibrate the performance prediction models for flexible pavements (permanent deformation, alligator fatigue cracking, longitudinal cracking, thermal cracking, and roughness) in the MEPDG for Idaho local conditions.
  - Prepare final report explain the details of the completed research work with the findings and conclusions.
- This project will begin in January 2012 and will be completed by March 2014. The estimated project cost is \$205,000 (\$164,000 Federal SPR (80/20)).
- Mike Santi, Assistant Materials Engineer, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Review of the flexible pavements distress prediction models. Evaluate the inputs required for the MEPDG. Identify LTPP and other pavement sections for performance calibration.

### COST

- A total of \$109,664 (\$87,731 Federal SPR funds (80/20)), is being budgeted to cover planned costs for this project.

### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	<a href="#">5/18/11</a>
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	<a href="#">5/18/11</a>
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	<a href="#">5/18/11</a>
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	

**Comments:** The amount budgeted was increased after receiving approval to shift Planning funds in May 2011. The remaining funds needed for this multi-year project will be budgeted in FY2013.

## ITEM 8.9.4 – RESEARCH PROJECT 212

### IDENTIFICATION: Research Project 212

Title: Lithologic Characterization of Active ITD Aggregate Sources and Implications for Aggregate Quality  
Research Agency: University of Idaho (Idaho Geological Survey)  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- Examine the physical and chemical properties of the active concrete and plantmix aggregate sources throughout Idaho. Evaluate the aggregate sources for comparison and geological characterization. The report will be disseminated to the public through an Idaho Geological Survey publication. A GIS/GEODATABASE will be implemented for ITD use.
- The project objectives are:
  - Identify source gravels by formational units.
  - Compile technical specification and develop sampling protocols.
  - Characterize the source material used in road construction from samples obtained throughout Idaho.
  - Lithologic results compiled into percents and entered into a spreadsheet.
  - Final report and accompanying ArcGIS project files with all compiled data.
  - Survey publication, such as a map showing the geologic features and characterizations of the aggregates studied, made available to the public.
  - Implementing the data into a GIS/GEODATABASE for ITD use.
- This project will begin in May 2011 and will be completed by September 2013. The estimated project cost is \$120,000 (\$96,000 Federal SPR (80/20)).
- Bill Capual, District 1 Geologist, and Keith Nottingham, District 3 Geologist, are the ITD Project Managers.

### PROPOSED ACTIVITY – FY2011

- Identify source gravels, compile technical specification, and develop sampling protocols. Begin the sampling process from all six districts in Idaho.

### COST

- A total of \$120,000-(\$96,000 Federal SPR funds (80/20)), is being budgeted to cover planned costs for this project.

### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	<a href="#">5/18/11</a>
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	<a href="#">5/18/11</a>
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	<a href="#">5/18/11</a>
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
Comments: The amount budgeted for this project was increased after receiving approval to shift Planning dollars to support research project.				

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## ITEM 8.10 – 2011 COOPERATIVE RESEARCH PROJECTS (BOISE STATE UNIVERSITY)

### IDENTIFICATION: Research Projects 206, 207, and 208

Title: Cooperative Transportation Research Program  
Research Agency: Boise State University  
Work Plan Approval: Yes, previously approved

This section describes new projects planned for FY2011 with Boise State University. The total cost of the projects is estimated at \$145,000. A total of \$47,000 was encumbered for these projects in FY2010 and an additional \$98,000 is budgeted to cover costs for these projects in FY2011

### ITEM 8.10.1 – RESEARCH PROJECT 206

#### IDENTIFICATION: Research Project 206

Title: Continued Laboratory and Field Investigation of Concrete Sealer Products to Extend Concrete Pavement and Bridge Deck Life  
Research Agency: Boise State University  
Work Plan Approval: Yes, previously approved

#### OBJECTIVE

- Concrete sealer research will help ITD develop the test methods, properties, and specifications to extend rigid pavement and bridge deck life. This will be done through laboratory and field tests.
- The objectives of this project are:
  1. Based upon the evaluation of compounds utilized in Phase 1, the available Idaho specific data base on the efficacy of sealers will be expanded to include several types of sealers used more specifically on bridge deck surfaces through a series of laboratory and field tests.
  2. Several field sites on bridge decks in and around the Treasure Valley and/or the State of Idaho will be established with cores taken before and after the sealing process to monitor how well the selected sealers seal the cracks and establish parameter guidance as to effective selection criteria for future field application.
  3. Complete the testing of cores from the first four sealant field sites and correlate the tests of the cores with the laboratory data obtained during Phase One tests to continue the long-term monitoring of sealant performance.
- This project will begin in June 2011 and will be completed by June 2013. The estimated project cost is \$100,000 (\$80,000 Federal SPR (80/20)).
- Keith Nottingham, District 3 Engineer, is the ITD Project Manager.

#### PROPOSED ACTIVITY – FY2011

- Test and apply different products to the same sites as in first project. Continue to observe, sample, and test concrete sites that have applied sealer products.

#### COST

- A total of \$53,000 (\$42,400 Federal SPR funds (80/20), is being budgeted to cover planned costs for this project.

## FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/11
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments:</b> The amount budgeted for this project in FY11 was increased from \$15,000 to \$53,000. Funding was moved from planning to research. The remaining funds for the project were encumbered in FY10				

## ITEM 8.10.2 – RESEARCH PROJECT 207

### IDENTIFICATION: Research Project 207

Title: Development of an Avalanche Forecasting Model for Highways 12 and 21  
Research Agency: Boise State University  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- An operational, real-time avalanche-forecasting model (Snow Slope Stability (SNOSS)) tuned specifically for Highways 12 and 21 will be provided to ITD that forecasters can consult remotely from Lowman. SNOSS will improve process efficiency during difficult forecast periods, which can shorten closures and increase safety to workers and travelers.
- The project objectives are:
  1. Install an in-situ settlement gauge at Banner Summit to provide necessary information on snowpack density and strength.
  2. Provide key parameters to tune the densification process within SNOSS to Highways 12 and 21 from the installed gauge.
  3. Determine exactly when an avalanche occurs by installing time-lapse cameras in the most active avalanche paths.
  4. Validate SNOSS forecast data with information gleaned from the cameras on actual avalanche occurrence.
- This project will begin in October 2010 and will be completed by October 2012. The estimated project cost is \$10,000 (\$8,000 Federal SPR (80/20)).
- Bill Nicholson, Lead Avalanche Forecaster, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Install an in-situ settlement gauge. Provide key parameters to tune SNOSS to Highways 12 and 21. Install time-lapse cameras. Complete forecasting model.

### COST

- A total of \$10,000 (\$8,000 Federal SPR funds (80/20)), is being budgeted to cover planned costs for this project.

### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
Comments:			

### ITEM 8.10.3 - Research Project 208

#### IDENTIFICATION: Research Project 208

Title: Defining and Quantifying Rural Congestion  
Research Agency: Boise State University  
Work Plan Approval: Yes, previously authorized

#### OBJECTIVE

- Develop an acceptable definition for rural congestion, and data collection methods for identifying rural congestion. ITD will use the results of this project to implement the data collection plan, which will assist with planning and programming improvements to rural highway segments statewide, addressing safety and mobility issues.
- The project objectives are:
  1. Conduct literature search.
  2. Interview state DOT representatives.
  3. Document the findings in a working paper and a PowerPoint presentation of rural congestion definition.
  4. Develop data collection plan to support identifying rural congestion.
  5. Data Collection Plan research report.
- This project will begin in January 2011 and will be completed by October 2011. The estimated project cost is \$35,000 (\$28,000 Federal SPR (80/20)).
- Robert Koeberlein, Mobility Services Engineer, is the ITD Project Manager.

#### PROPOSED ACTIVITY – FY2011

- Develop a data collection plan to support identifying rural congestion. Present a PowerPoint presentation, working paper, and final research report.

#### COST

- A total of \$35,000 [\$28,000 Federal SPR funds (80/20)] is being budgeted to cover planned costs for this project.

#### FY2011 CHANGES

Amendment Added:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:
Letter Sent to FHWA:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:
Approval Letter Received:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:
<b>Comments: BSU researchers were selected through a competitive RFP process. Project now included with other BSU projects.</b>			

## ITEM 8.11 – 2011 COOPERATIVE RESEARCH PROJECTS (Montana State University)

### IDENTIFICATION: Research Projects 201 and 209,

Title: Cooperative Transportation Research Program  
Research Agency: Montana State University (Western Transportation Institute)  
Work Plan Approval: Yes, previously approved

This section describes new projects planned for FY2011 with Montana State University. The total cost for the projects is estimated at \$231,852. A total of \$169,999 is being budgeted for new projects. The remaining costs for Research Project 209 will be paid by ITD's Office of Highway Safety with Safety Flex Funds.

### ITEM 8.11.1 - Research Project 201

### IDENTIFICATION: Research Project 201

Title: Evaluating the Effectiveness of Winter Chemicals on Reducing Crashes in Idaho  
Research Agency: Montana State University (WTI)  
Work Plan Approval: Yes, approved in original FY2010 Work Program

### OBJECTIVE

- This project will evaluate the effectiveness of each chemical product as it relates to reducing crashes on Idaho highways in order to develop a best management practice of reach climate zone in the state.
- The project objectives are:
  1. Evaluate each chemical and its ability to provide a level of service equal to a bare and wet pavement.
  2. Determine the effectiveness of each chemical at reducing crashes during winter months.
  3. Develop an application matrix taking into account each chemical type, temperature, region of the state, climate zone, crashes, and slide-offs.
- This project will begin in April 2011 and will be completed by October 2012. The estimated project cost is \$120,000 (\$96,000 Federal SPR (80/20)).
- Steve Spoor, Maintenance Program Manager, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Review literature. Identify test road segments and review historic winter crash and slide-off data. Review and summarize existing chemical application data and weather/road conditions. Develop and compare incident rates by type of winter treatment. Develop data requirements and train districts. Prepare a final report and make a presentation to ITD management.

### COST

- A total of \$120,000 (\$96,000 Federal SPR funds (80/20)) is budgeted for this project in FY2010.

### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/11
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
Comments: The amount budgeted for this project was increased after shifting funding from Planning to Research.				



## ITEM 8.11.2 - Research Project 209

### IDENTIFICATION: Research Project 209

Title: Media Messages and Tools to Reduce Fatal and Serious Injury Single Vehicle Run-Off-the-Road (ROR) Crashes  
Research Agency: Montana State University (WTI)  
Work Plan Approval: Yes, authorized approval

### OBJECTIVE

- This project will find tools to effectively change the behavior of Idaho's target audience that is represented in single vehicle run-off road crashes. The tools will be used to develop an effective media campaign targeted to the identified audience using the methods recommended by the research team. Ultimately, the media campaign would be quantified by a lower death rate on Idaho's rural roads.
- The project objectives are:
  1. List of effective practices, concepts, or tools that have proven effective in other similar states.
  2. Recommended message delivery tools to reach and impact target audience.
  3. Recommended messages that would be most impactful and be best received by this audience.
- This project will begin in April 2011 and will be completed by July 2012. The estimated project cost is \$111,852. SPR funds will provide \$50,000 (\$40,000 Federal SPR (80/20)). ITD's Office of Highway Safety will provide the remaining \$61,852 to cover the cost of this research project using Safety Flex Funds.
- Steve Rich, Research Analyst, Principal, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

Compare effective practices in states similar to Idaho. Recommend message delivery tools and impactful messages.

### COST

- A total of \$50,000 (\$40,000 Federal SPR funds (80/20)) is being budgeted to cover planned costs for this project. The remaining \$61,852 will be paid by ITD's Office of Highway Safety using Safety Flex Funds,.

### FY2011 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/11
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments:</b> The scope of the project was expanded. The Office of Highway Safety will cover the additional costs.				



## ITEM 8.12 – 2011 COOPERATIVE RESEARCH PROJECTS (Washington State University)

### IDENTIFICATION: Research Project 210

Title: Cooperative Transportation Research Program  
Research Agency: Washington State University  
Work Plan Approval: Yes, previously approved

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This section describes a new project planned for FY2011 with Washington State University. The total cost for the project is estimated at \$99,147.

### ITEM 8.12.1 - Research Project 210

### IDENTIFICATION: Research Project 210

Title: Review of Non-nuclear Density Gauges as a Possible Replacement for ITD's Current Nuclear Density Gauges  
Research Agency: Washington State University  
Work Plan Approval: Yes, previously authorized

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### OBJECTIVE

- The use of non-nuclear gauges will offer ITD cost savings in training, monitoring, and repair costs associated with ITD's nuclear program. This project will identify a non-nuclear density gauge replacement for the existing aging gauges currently in use.
- The project objectives are:
  1. Look at non-nuclear density gauges used for HMA and unbound materials.
  2. Review density test data that ITD has collected.
  3. Perform side-by-side comparisons of the ITD non-nuclear and nuclear gauges with four- and six-inch cores.
  4. Write a report describing the findings of the comparisons.
  5. Compare ITD's nuclear density gauges and various types of non-nuclear gauges for use on unbound materials. This will be done on several construction projects in the districts and test bases, sub-bases, and soils under various conditions encountered in Idaho.
  6. Develop a recommendation for continued use of nuclear density gauges or recommend a replacement type of non-nuclear gauge.
- This project will begin in May 2011 and will be completed by November 2012. The estimated project cost is \$99,147 (\$79,318 Federal SPR (80/20)).
- Clint Hoops, Field Service Engineer, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2011

- Test, compare, and evaluate various non-nuclear gauges with ITD's nuclear density gauge. Compare differences in the test results, accuracy, ease-of-use, and cost of the various gauges. Develop a recommendation for continued use of density gauges or recommend a replacement type of non-nuclear gauge.

### COST

- A total of \$99,147 (\$79,318 Federal SPR funds (80/20)), is being budgeted to cover planned costs for this project.

**FY2011 CHANGES**

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	5/18/11
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	5/18/11
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	5/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments: Researchers from WSU were selected through a competitive process. The amount of funding budgeted for the project in FY11 was increased as Planning funds were shifted to Research.</b>				

## ITEM 8.13 – 2011 COOPERATIVE RESEARCH PROJECTS (Private Consultants)

### IDENTIFICATION: Research Project 205B

Title: Cooperative Transportation Research Program  
Research Agency: Gordon Proctor and Associates  
Work Plan Approval: Yes, previously approved

This section describes a new project planned for FY2011 with Gordon Proctor and Associates. The total cost for the project is estimated at \$23,190.

#### ITEM 8.13.1 RESEARCH PROJECT 205B

### IDENTIFICATION: Research Project 205B

Title: Assessment of ITD Customer Service Performance 2011  
Research Agency: Gordon Proctor & Associates, Inc.  
Work Plan Approval: Yes, previously authorized

### OBJECTIVE

- Analyze and assess the 2011 ITD Customer Survey and compare it with the results of the 2009 Customer Survey. The assessment will be used as a management tool to help target needed improvements within ITD.
- The project objectives are:
  - Assess ITD customer service performance based on review of survey results, comparison to past surveys and other states, and knowledge of the transportation field
  - Develop recommendations to improve ITD customer service based on research findings.
  - Review ITD management efforts to assess customer service
  - Develop recommendations ITD management could consider to improve the way the department assesses its customer service performance.
- The project will begin in August 2011 and will be completed by March 2012. The estimated project cost is \$23,190 (\$18,552 Federal SPR (80/20)).
- Ned Parrish, Research Manager, is the ITD Project Manager.

### PROPOSED ACTIVITY – FY2012

- Review ITD efforts relevant to customer service. Interpret and review customer survey responses. Compare and contrast with other states' results. Develop recommendations to improve ITD customer service and management efforts to monitor and review agency customer service performance. Write a final report. Present findings to ITD Board and Legislative Committees.

### COST

- FY 2011 funds totaling \$23,190 (\$18,552 Federal SPR Funds(80/20)) are budgeted to cover project costs.

### FY2012 CHANGES

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	8/18/2011
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	8/18/2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	8/18/11
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	
<b>Comments: This project was added to the FY11 Work Program as an enhancement to the 2011 Customer Survey. Funding for the project totaling \$23,190 was shifted from other FY11 multi-year projects to cover the costs for the work.</b>				



## ITEM 9.1 – LHTAC Study

### IDENTIFICATION: LHTAC Study #1

Title: Idaho Local Federal Aid Process Study  
Research Agency: TBD  
Work Plan Approval: Yes, previously authorized

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### OBJECTIVE

- Project overview: Research Department of Transportation (DOT) local federal aid process in the following states: Washington, California, Oregon, Utah, Nevada, and Arizona. The consultant will then summarize the findings in a technical memorandum.
  - The project objectives are:
    1. Identify key differences in how the above western states manage local Federal-aid projects.
    2. Determine the differences between state and local road construction standards (if any).
    3. Recommend possible changes to ITD/LHTAC local Federal-aid procedures based on proven efficiencies identified in the study
  - Key tasks include:
    1. Research local agency guidelines manuals where present to establish similarities and differences in how local Federal-aid programs are administered.
    2. Interview state agency personnel responsible for administering and providing oversight of local Federal-aid programs to evaluate how effective the process is and any suggestions to improve current practices.
    3. Interviews with local sponsors about what they think works well and how things might be improved.
    4. Preparation of a matrix of key similarities and differences of administrative procedures.
    5. Establish whether states allow local roads standards that are different from state standards.
    6. Evaluate key differences between how the individual states manage local Federal-aid projects and rate those that likely would result in increased efficiency or streamline the process.
    7. Recommendations.
- This project will begin in July 2011 and will be completed by March 2012.
- Todd Bartolome, Construction Engineering Manager, LHTAC will serve as Project Manager. The project advisors are Monica Crider, Local Roads Engineer, ITD and Jason Giard, Operations Engineer for Local Programs, FHWA Idaho Division Office.

### PROPOSED ACTIVITY – FY2011

- LHTAC may at its discretion expand the consultant's scope to use findings of the study to assist LHTAC in implementation measures. This task will include, but is not limited to, coordinating and orchestrating meetings with the state, local agencies and other stakeholders (i.e. LHTAC, ITD, IAC, AIC, IAHD, ACEC) to discuss concepts, procedures and policies.
- LHTAC may at its discretion expand the consultant's scope to include assistance with drafting and developing language, policies, and procedures for a local federal aid process manual.

### COST

- A total of \$120,000 from STP Rural funds is being budgeted to cover planned costs for this project.

**FY2011 CHANGES**

Amendment Added:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Amended:	June 1, 2011
Letter Sent to FHWA:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Sent:	June 1, 2011
Approval Letter Received:	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Date Received:	June 1, 2011
Removed from Program:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Date Removed:	

**Comments:** This LHTAC project was added to the Work Program at the request of FHWA. The project is not funded with SPR dollars. LHTAC is using STP funds for the project.

# **PART III: COST SUMMARY**



# PART I: FY11WORK PROGRAM PLANNING– F11901A

## TOTAL PROGRAM FUNDING SUMMARY

Item #	(FC)	Work Program Task	FY11Work Program	SPR/FED	State Match	Other Federal Aid	100% State
1.0	AA	<b>Administration</b>					27,900
		Personnel Cost					187,193
		<i>Subtotal</i>	0	0	0	0	215,093
2.0		<b>Geographic Information Systems</b>					
2.1	CF	Digital Mapping & Cartography	228,354	182,683	45,671		
2.2	BE	Location Referencing System	125,877	100,702	25,175		
2.3	BA	Local Road Program	211,292	169,034	42,258		
2.4	CG	GIS Program Development	182,127	145,702	36,425		
		<i>Subtotal</i>	<b>747,650</b>	<b>598,121</b>	<b>149,529</b>		
3.0		<b>Intermodal Planning</b>					
3.1	FF	Statewide Transportation Planning	374,401	299,521	74,880		
3.2	FB	Highway Classification & Systems	40,000	32,000	8,000		
3.3	FP	Statewide Program Planning & Mgmt	120,000	96,000	24,000		
3.4	FR	Freight & Freight Rail Planning	50,000	40,000	10,000		
3.5	FC	ADA Data Collection	200,000	160,000	40,000		
		<i>Subtotal</i>	<b>784,401</b>	<b>627,521</b>	<b>156,880</b>		
4.0		<b>Planning Services</b>					
4.1	FD	Monitor Conditions of the Transportation System	40,000	32,000	8,000		
4.2	FH	Analyze and Model The Transportation System	323,089	258,471	64,618		
4.3	FL	Report the Transportation System	100,000	80,000	20,000		
		<i>Subtotal</i>	<b>463,089</b>	<b>370,471</b>	<b>92,618</b>		
5.0		<b>Roadway Data</b>					
5.1	DA	Vehicle Volumes, Classification, Weight and Characteristics	1,222,088	977,670	244,418		
5.2	FJ	State Highway System Inventory	100,000	80,000	20,000		
5.3	FK FL	Highway System Monitoring & Reporting	130,000	104,000	26,000		

<i>Subtotal</i>	<b>1,452,088</b>	<b>1,161,670</b>	<b>290,418</b>
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<b>6.0</b>	<b>Public Transportation</b>		
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<b>6.1</b>	TE	<i>Transportation Enhancement Planning &amp; Management</i>	0	0	0
<b>6.2</b>	FI	Bicycle and Pedestrian Planning	120,000	96,000	24,000
<b>6.3</b>		<i>Public Transportation Administration Grant P1075SA</i>	123,750	99,000	24,750
		<i>Subtotal</i>	<b>223,750</b>	<b>195,000</b>	<b>48,750</b>

<b>7.0</b>	<b>Programming</b>		
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<b>7.1</b>	TI	<i>OTI</i>	332,200	265,760	66,440
		<i>Subtotal</i>	<b>332,200</b>	<b>265,760</b>	<b>66,440</b>

## PART II: FY11WORK PROGRAM RESEARCH– F11901R

### TOTAL PROGRAM FUNDING SUMMARY

Item #	Phase (FC)	Work Program Task	Study Type	FY11 Program	SPR/ FED	State Match	Technical Contact
8.1	RB	<b>National Cooperative Highway Research Program (NCHRP)</b> <i>States are required to contribute a portion of their SPR funds to support the NCHRP Program. These items are funded at 100% SPR.</i>	N/A	317,433	317,433	0	Ned Parrish
8.2	RC	<b>Expenses for Annual TRB Meeting, AASHTO Research Advisory Committee meetings</b>	N/A	2,200	1,760	440	Ned Parrish
8.4	RE	<b>AASHTO Engineering Technical Service Programs</b> <i>APEL, NTPEP, SICOP, TIG, AETO, &amp; TSP<sup>2</sup>, DAMS, &amp; LRFD</i>	N/A	71,650	57,320	14,330	Varies – See Section 8.4
8.5	RF	<b>Pooled Fund Studies</b> <i>Funds are passed through ITD to specific pooled fund studies that qualify for 100% federal SPR. A total of \$286,855 is committed to these projects.</i>	N/A	288,600	288,600	0	Varies – See Section 8.5
8.6	RL	<b>FY09 Contract Research with UI (NIATT)</b> <i>Research Projects 191, 192, &amp; 193. \$16,000 is budgeted to cover costs for additional analysis for RP 191. Other remaining costs will be paid from prior year encumbrances.</i>	A/B	16,000	12,800	3,200	Brent Jennings Cathy Ford Mike Santi
8.9	RL	<b>FY11 Contract Research with UI</b> <i>Projects 204, 205A, 211 and 212. These projects were selected for funding in April 2010. They have an estimated total cost of \$421,000.</i>	A/B	325,664	260,531	65,133	Mike Santi K. Nottingham M. Gresham Ned Parrish
8.10	RL	<b>FY11 Contract Research with BSU</b> <i>Research Projects 206, 207, &amp; 208. These projects were selected for funding in April 2010. They have an estimated total cost of \$145,000.</i>	A/B	98,000	78,400	19,600	K. Nottingham Bill Nicholson Bob Koeberlein
8.11	RL	<b>FY11 Contract Research with Montana State University</b> <i>Research Projects 201 &amp; 209. These projects were selected for funding in April 2010. They have an estimated total cost of \$231,852</i>	A/B	169,999	135,999	34,000	Steve Spoor Steve Rich
8.12	RL	<b>FY11 Contract Research with Washington State University</b> <i>Research Project 210. This project was selected for funding in April 2010. It has an estimated total cost of \$99,147.</i>	A/B	99,147	79,318	19,829	Clint Hoops
8.13	RL	<b>FY11 Contract Research with Private Consultants</b> <i>Project 205B. This project was approved for funding in August 2011. It has an estimated total cost of \$23,190.</i>	A/B	23,190	18,552	4,638	Clint Hoops
8.14	RG	<b>Research Administration</b>	N/A	168,429	134,743	33,686	Ned Parrish
<b>Pooled Fund and NCHRP Costs (Items 1 &amp; 5)</b>				606,033	606,033	0	
<b>Program Budget (excluding Items 1 &amp; 5)</b>				974,279	779,423	194,856	
<b>Totals</b>				1,580,312	1,385,456	194,856	

# **PART I: FY11WORK PROGRAM PLANNING – RESEARCH PLANNED WORK WITH PRIOR YEAR SPR AND NON-SPR FUNDS TOTAL PROGRAM FUNDING SUMMARY**

Item #	Phase (FC)	Work Program Task	Study Type	Technical Contact
8.3	RE	<b>AASHTO Turbo Relocation Software Development</b> <i>The Turbo Relocation Software Development Project was initiated in FY2008 and is expected to be completed in the fall of 2010. ITD is providing funding for the project in FY2008 and FY2009. Our funding commitment to the project is met and no further funding is needed.</i>	N/A	Carmen Reese
8.7	RL	<b>FY09 Contract Research with BSU, Research Project 194</b> <i>Research Project 194 was initiated in FY2009 and will be completed in FY2011. The total cost of the project is \$94,000. The money to complete the project was encumbered in the FY2010 budget.</i>	A/B	Keith Nottingham
8.8	RL	<b>FY10 Contract Research with UI (NIATT), Research Projects 199 and 200</b> <i>Research Projects 199 and 200 were initiated in FY2010 and will be completed in FY2011. Total cost of the project is \$71,340. Funding to complete the projects was encumbered in the FY2010 budget.</i>	A/B	Mike Santi Kelly Campbell

## TOTAL PLANNING AND RESEARCH PROGRAM FUNDING SUMMARY

Work Program Task		FY11Work Program	SPR/FED	State Match	Other Federal Aid	100% State
<b>Planning Summary</b>						
Part I	Total SP Work Program	3,447,228	2,757,783	689,445		215,093
	Indirect Cost Estimate at 12.67%	436,764	349,411	87,353		
	<b>Total FY2011 Estimate Planning</b>					
	Funds Obligated	3,883,992	3,107,194	776,798		
	<b>Projects Outside of Transportation Planning</b>					
	Total Projects Outside of Transportation Planning	452,200	361,760	90,440		
	Indirect Cost Estimate at 12.67%	57,294	45,835	11,459		
	<b>TOTAL</b>	<b>509,494</b>	<b>407,595</b>	<b>101,899</b>		
	Public Transportation Administration Grant	123,750	99,000	24,750		
	<b>Research Summary</b>					
Part II	FY2011 Research Work Program	1,580,312	1,385,456	194,856		
	Indirect Cost Estimate at 12.67%	123,441	98,753	24,688		
	<b>TOTAL</b>	<b>1,703,753</b>	<b>1,484,209</b>	<b>219,544</b>		
<b>TOTAL WORK PROGRAM (F111901A/F11901R/P1075SA)</b>		<b>6,220,989</b>	<b>5,097,998</b>	<b>1,122,991</b>		<b>215,093</b>